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CONGRESSIONAL BUDGET OFFICE

Reducing the Deficit: Spending and Revenue Options

A REPORT TO THE SENATE AND
HOUSE COMMITTEES ON THE BUDGET

MARCH 1997

REDUCING THE DEFICIT: SPENDING AND REVENUE OPTIONS

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Congressional Budget Office

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NOTES

Unless otherwise indicated, all years referred to in this report are fiscal years.

Numbers in the text and tables of this report may not add to totals because of rounding.

Preface

This volume compiles some 200 specific policy options for reducing spending or increasing federal revenues in a wide variety of programs. It is the 18th such compendium that the Congressional Budget Office (CBO) has prepared as part of its annual report to the House and Senate Committees on the Budget.

The policy options included in this report come from many sources, and the Congress has considered most of them at some time in the past. In keeping with CBO's mandate to provide objective and impartial analysis, the discussion of each option presents the cases for and against it as fairly as possible. CBO does not endorse the options included, nor does exclusion of any proposal imply a recommendation for or against it.

The report begins with an introductory chapter that provides general background information on CBO's latest deficit projections and explains how to use the options presented in this volume. The next three chapters include more than 150 options for reducing spending, organized by broad categories that have become the focus for deficit reduction efforts--defense and international discretionary spending, domestic discretionary spending, and entitlement and other mandatory spending. The fifth chapter presents several integrated packages of options for reducing the growth of spending for Medicare and Medicaid instead of a series of individual policy options. The discussion highlights the trade-offs and interactions that must be considered when combining detailed policies into comprehensive proposals. The last chapter presents 39 revenue-generating options. The report concludes with an appendix listing the spending options by the budget functions that would be affected, and a glossary of budget and economic terms.

All divisions of the Congressional Budget Office contributed to this report, which was coordinated by James L. Blum. Edward Davis prepared Chapter 1. The options presented in Chapters 2 through 4 and Chapter 6 were coordinated by Mark B. Booth, David H. Moore, R. Mark Musell, Constance Rhind, and R. William Thomas. Joseph R. Antos and Linda Bilheimer prepared Chapter 5. Budget authority and outlay estimates were coordinated by Paul R. Cullinan, Peter H. Fontaine, Michael A. Miller, and Murray N. Ross. The staff of the Joint Committee on Taxation prepared most of the revenue estimates.

Paul L. Houts and Sherry Snyder supervised the editing and production of the report. Major portions were edited by Paul L. Houts, Sherwood D. Kohn, Sherry Snyder, and Christian Spoor. Marlies Dunson provided editorial assistance during production. The authors owe thanks to Cynthia Cleveland, Sharon Corbin-Jallow, Denise Jordan, Angela Z. McCollough, Ronald Moore, L. Rae Roy, and Simone Thomas, who typed the early drafts. Kathryn Quattrone and Jill Sands prepared the report for publication.

June E. O'Neill
Director

March 1997

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Introduction

Deep concern over the federal deficit continues to drive the budget debate. The Congressional Budget Office (CBO) projects that if current policies remain unchanged, the deficit will begin to grow in 1997 after four years of decline. That growth is expected to be moderate over the next decade. More troubling, however, are long-term budgetary trends that threaten to create unprecedented deficits and debt by the middle of the next century, potentially causing damage to the economy. Taking action now to reduce the deficit in the near term would contribute to long-term budgetary stability and make the additional policy changes required in the future less painful.

This volume includes many options for changes that would help to lower the deficit by reducing spending or increasing revenues. The President and the Congress have expressed their commitment to a balanced budget by 2002, and the options could be used to devise a wide variety of ways to reach that goal.

The Deficit Outlook

After declining significantly from 1993 through 1996, the federal deficit is projected to begin a period of slow but generally steady growth under current policies and expectations about the economy. CBO estimates that the federal deficit, which dropped to $107 billion in 1996 (its lowest nominal level since 1981), will creep up to $124 billion this year. Moreover, without changes in current policies, CBO projects that the deficit will rise to $188 billion in 2002 (the year that the President and the Congress have targeted for a balanced budget) and to $278 billion by 2007 (see Table 1-1).

Given the size of the U.S. economy, the projected deficits are smaller than those of the past 20 years, although they are well above the average for the 1950s and 1960s. As a percentage of gross domestic product (GDP), the deficit under CBO's baseline assumptions will average 1.9 percent over the 1997-2007 period, compared with an average of 3.5 percent over the previous 20 years and 0.6 percent from 1950 through 1969.[1]

However, those favorable trends do not continue. Beginning about 2010, the first wave of the baby-boom generation reaches retirement age, bringing unprecedented pressure on federal spending for the Social Security, Medicare, and Medicaid programs. At about the same time, the number of people working and paying taxes to support those and other programs will grow much more slowly. In short, unless current policies are changed, those trends would drive federal debt before the middle of the next century to levels that the economy could not sustain.[2]

Another key aspect of the problem has to do with the composition of federal outlays. Over the past 30 years or so, the composition of federal outlays has shifted dramatically from discretionary spending, which is appropriated annually, to mandatory spending, which

1. Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1998-2007* (January 1997), p. xiii.

2. Congressional Budget Office, *Long-Term Budgetary Pressures and Policy Options* (forthcoming).

Table 1-1.
CBO Budget Outlook Under Current-Policy Economic Assumptions with Inflation in Discretionary Programs After 1998 (By fiscal year)

	Actual 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
In Billions of Dollars												
Revenues	1,453	1,507	1,567	1,634	1,705	1,781	1,860	1,943	2,033	2,127	2,227	2,333
Outlays												
Discretionary	533	547	543	561	578	595	613	631	650	670	691	713
Mandatory												
Social Security	347	364	381	400	420	441	464	487	513	539	568	599
Medicare and Medicaid[a]	283	307	332	362	396	418	458	495	537	593	637	680
Other mandatory and offsetting receipts	156	165	177	197	217	222	235	242	252	267	272	280
Subtotal	786	836	890	959	1,032	1,081	1,156	1,224	1,302	1,399	1,476	1,558
Net interest	241	248	253	261	267	272	279	289	300	312	325	340
Total	1,560	1,632	1,687	1,781	1,877	1,948	2,049	2,145	2,252	2,381	2,492	2,611
Deficit	107	124	120	147	171	167	188	202	219	254	266	278
Debt Held by the Public	3,733	3,869	4,009	4,173	4,358	4,539	4,740	4,954	5,184	5,448	5,723	6,011
As a Percentage of GDP												
Revenues	19.4	19.3	19.2	19.0	19.0	18.9	18.8	18.8	18.8	18.8	18.8	18.8
Outlays												
Discretionary	7.1	7.0	6.6	6.5	6.4	6.3	6.2	6.1	6.0	5.9	5.8	5.8
Mandatory												
Social Security	4.6	4.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.8	4.8	4.8
Medicare and Medicaid[a]	3.8	3.9	4.1	4.2	4.4	4.4	4.6	4.8	5.0	5.2	5.4	5.5
Other mandatory and offsetting receipts	2.1	2.1	2.2	2.3	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3
Subtotal	10.5	10.7	10.9	11.2	11.5	11.5	11.7	11.8	12.0	12.4	12.5	12.6
Net interest	3.2	3.2	3.1	3.0	3.0	2.9	2.8	2.8	2.8	2.8	2.7	2.7
Total	20.8	20.8	20.6	20.8	20.9	20.7	20.8	20.8	20.8	21.0	21.1	21.1
Deficit	1.4	1.6	1.5	1.7	1.9	1.8	1.9	2.0	2.0	2.2	2.2	2.2
Debt Held by the Public	49.9	49.4	49.0	48.7	48.5	48.2	48.0	47.9	47.9	48.1	48.4	48.6

SOURCE: Congressional Budget Office.

a. Excludes Medicare premiums, which are considered offsetting receipts.

typically is governed by permanent laws. In 1965, discretionary spending accounted for about two-thirds of total federal spending, with mandatory spending accounting for the remaining one-third (all spending is classified as either discretionary or mandatory). By 1996, those spending shares had been reversed, with mandatory spending (including net interest) now accounting for about two-thirds of total federal spending.

At the same time, federal spending as a percentage of GDP climbed significantly. Total federal spending averaged around 18 percent of GDP from 1950 to 1970, rose to over 23 percent of GDP in the early 1980s, and fell to about 21 percent of GDP by the 1990s. Since total revenues averaged closer to 18 percent of GDP throughout the 1950-1990 period, the deficit increased. The recent rise in total revenues to 19.4 percent of GDP in 1996 contributed to narrowing the deficit.

Discretionary spending is expected to total about $550 billion in 1997 and covers a wide array of governmental functions and activities. About half of all discretionary spending goes for national defense--a much smaller share than in the past. The rest funds various domestic and international activities, including housing, agriculture, education, environmental protection, law enforcement, space exploration, research and development, international assistance, and general government.

Mandatory spending consists mainly of large entitlement programs--such as Social Security, Medicare, and Medicaid--and of interest payments on the federal debt. (In recent years, the two main health care entitlements--Medicare and Medicaid--have been the biggest source of growth in mandatory spending.) For most mandatory spending programs, the federal government is obligated to spending levels that depend on factors, such as inflation and the use of health services, that are beyond the government's direct control.

Since fiscal year 1991, limits on total discretionary spending and a pay-as-you-go (PAYGO) requirement for mandatory spending and revenue legislation have been in effect, though those budget enforcement procedures expire at the end of fiscal year 1998 (see Box 1-1). The discretionary spending limits have imposed a rough freeze on total discretionary spending since 1992. The PAYGO requirement generally bars new mandatory spending or revenue legislation from increasing the deficit. However, although effective, PAYGO does not address the growth of mandatory spending under existing law. Controlling that growth has proved to be a more formidable challenge.[3]

Despite reconciliation acts and other laws in recent years designed to slow its growth, mandatory spending is projected to continue rising both as a portion of total spending and as a percentage of GDP.[4] Indeed, in 1997, mandatory spending is expected to approach $1.1 trillion.

Although CBO recently lowered its projections for Medicare and Medicaid spending, rapid growth in those two programs is expected to continue and to outpace that of all other entitlements. In fact, both programs will more than double in size over the next 10 years. Medicare balloons from $209 billion in 1997 to $464 billion in 2007, and Medicaid jumps from $99 billion to $216 billion over the same period. By 2003, annual spending for those two programs combined is projected to overtake, for the first time, annual spending for Social Security.

What Is Needed to Balance the Budget by 2002?

As in previous editions of this volume, CBO presents an illustrative deficit reduction path showing the magnitude of the policy changes needed to reach a balanced budget by 2002 (see Table 1-2). To balance the budget by 2002, CBO estimates that the Congress and the President would have to enact policy changes this year that pare deficits by about $450 billion. Deficit reduction policies totaling that amount would also reduce federal debt-service costs (lowering the deficit by about $45 billion over the period) and produce a balanced

3. For a discussion of the issues involved with controlling mandatory spending, see Congressional Budget Office, *Mandatory Spending Control Mechanisms*, CBO Paper (February 1996).

4. Under the Congressional Budget Act of 1974, reconciliation instructions may be included in a budget resolution that directs committees to report legislation changing mandatory spending or revenue laws. The House and Senate Budget Committees typically package the instructed committees' recommendations (without substantive revision) into one or more omnibus reconciliation bills that the Congress then considers under expedited procedures.

Box 1-1.
Procedures for Controlling the Deficit

Over the past decade or so, the Congress and the President have enacted a series of laws setting forth temporary procedures for reining in the deficit. Those procedures are now scheduled to expire at the end of fiscal year 1998. They must be extended this year to be effective for future budget cycles.

In 1985, the Balanced Budget and Emergency Deficit Control Act (known as Gramm-Rudman-Hollings) established a schedule of fixed deficit targets that called for eliminating the deficit by fiscal year 1991. It created a new procedure--known as sequestration--to make uniform spending reductions if the estimated deficit for a fiscal year did not meet the target for that year. Although deficits shrank initially after the 1985 Balanced Budget Act, they failed to meet the statutory targets (in some years by substantial margins).

In the fall of 1990, the Congress and the President amended the 1985 act to establish new procedures for deficit control. The Budget Enforcement Act of 1990 (BEA), enacted as part of a five-year plan for reducing the deficit, established two new requirements: annual limits on total discretionary appropriations and a pay-as-you-go (PAYGO) requirement for mandatory spending and revenue legislation (both of which are enforced by sequestration mechanisms). Originally, the BEA procedures were set to expire at the end of fiscal year 1995. However, they were extended through fiscal year 1998, without substantive change, as part of the Omnibus Budget Reconciliation Act of 1993.

The current discretionary spending limits and PAYGO requirement generally enforce the 1990 and 1993 deficit reduction agreements. Instead of enforcing fixed deficit targets, they ensure that new spending and revenue laws (on a net basis) are consistent with those agreements and do not increase deficits further through 1998.

The BEA procedures appear to have been effective in controlling discretionary spending, although the end of the Cold War eased the way for significant cuts in defense (which accounts for most of the discretionary spending restraint), and in preventing new mandatory spending and revenue legislation from increasing the deficit. However, the BEA had no effect on the growth of spending under existing law for mandatory programs like Medicare and Medicaid. Some policymakers are advocating changes in the BEA procedures, such as new rules that would permit certain trade-offs between the discretionary and PAYGO categories. This year the Congress is also likely to consider broader budget reforms for controlling deficits, including a balanced budget constitutional amendment.

A new device for controlling the deficit, the Line-Item Veto Act, went into effect this year. In general, it grants the President the authority to cancel certain spending and tax benefits that he signs into law. Only a subsequent law is able to overturn a cancellation.

budget "fiscal dividend" (reducing deficits an additional $80 billion or so over the period).

Economists generally agree that balancing the budget and keeping it balanced would have certain economic effects that would reduce deficits further, producing a fiscal dividend to the budget. Balancing the budget would lead to lower interest rates and slightly higher overall growth, which in turn would trim the deficit by cutting federal interest costs and bolstering federal revenues. Using balanced budget economic assumptions in the budget baseline permits policymakers to take that fiscal dividend into account when fashioning their balanced budget plans. It also gives a measure of the actual policy changes that are needed to reach that goal.[5]

Even if policymakers succeed this year in enacting legislation that is estimated to balance the budget by 2002, an unforeseen economic downturn or other events could spark increased deficits in the intervening years and require further action to stay on track for a balanced budget. Although CBO believes that its economic and programmatic assumptions are reasonable

5. For a more detailed discussion of the fiscal dividend from a balanced budget, see Congressional Budget Office, *The Economic and Budget Outlook*, pp. 59-69.

Table 1-2.
Illustrative Balanced Budget Path (By fiscal year, in billions of dollars)

	1997	1998	1999	2000	2001	2002	Total 1997-2002
CBO's Baseline Deficit[a]	124	120	147	171	167	188	n.a.
Fiscal Dividend[b]	c	-1	-4	-13	-25	-34	-77
Projected Deficit with Fiscal Dividend	124	119	143	158	143	154	n.a.
Restore Full Inflation Adjustment for Discretionary Spending	0	15	14	15	7	9	61
Debt service	0	c	1	2	3	3	10
Subtotal	0	16	15	17	10	13	71
Projected Deficit with Fiscal Dividend and Full Inflation for Discretionary Spending	124	135	158	175	152	167	n.a.
Discretionary Spending Freeze[d]	0	-15	-33	-51	-68	-87	-253
Debt service	0	c	-2	-4	-7	-11	-25
Total deficit reduction	0	-16	-35	-55	-75	-98	-278
Projected Deficit with Fiscal Dividend and Discretionary Spending Freeze	124	119	123	121	78	68	n.a.
Additional Policy Savings Needed to Balance the Budget[e]	0	-15	-30	-40	-50	-59	-194
Debt service	0	c	-2	-4	-6	-9	-21
Total deficit reduction	0	-15	-32	-44	-56	-68	-215
Resulting Deficit	124	103	92	77	22	0	n.a.
Total Policy Savings Needed to Balance the Budget	0	-30	-63	-91	-118	-147	-448
Debt service	0	-1	-4	-8	-13	-20	-45
Total deficit reduction	0	-31	-66	-98	-131	-167	-493

SOURCE: Congressional Budget Office.

NOTES: This table represents one of many possible paths that would lead to a balanced budget. The exact path depends on when the deficit reduction begins and what specific policies are adopted. This path is not based on any specific policy assumptions.

n.a. = not applicable.

a. CBO's baseline projections assume no change in current policies, and they project discretionary spending at the statutory cap for 1998, and at that level adjusted for inflation thereafter.

b. The fiscal dividend is the budgetary effect of improved economic performance that CBO estimates would result from balancing the budget by 2002.

c. Less than $500 million.

d. Assumes that discretionary appropriations for 1998 through 2002 are frozen at the 1997 level.

e. Policy savings in addition to a discretionary spending freeze at the 1997 level.

and analytically sound, relatively minor changes can have a significant effect on the federal budget, especially on revenues and mandatory spending.[6]

The path CBO has chosen does not assume any specific set of policies to reduce the deficit, even though the types of policies adopted would certainly matter. For example, deficit reduction that reduced the incentive to work or invest might have less positive economic effects than those assumed here and could lower the fiscal dividend. Conversely, policies that stimulated growth in the economy's potential output would have more favorable effects.

In calculating its illustrative path, as shown in Table 1-2, CBO uses two different projections for total discretionary spending. Under one projection, discretionary spending is adjusted after 1997 for the full effects of estimated inflation (the so-called uncapped baseline). Under the other, discretionary spending is frozen at the 1997 level through 2002.[7]

The President's 1998 budget proposes that total discretionary spending be held below inflation-adjusted levels but be allowed to grow slightly above a 1997 freeze level.[8] In last year's budget resolution, the Congress proposed that total discretionary spending be reduced slightly below a freeze at the 1997 level. The Congress is now in the process of developing its 1998 budget resolution.

A discretionary spending freeze at the 1997 level would save about $250 billion through 2002 (excluding associated debt-service savings). It would reduce the savings needed from other policy changes to about $200 billion, and thus would amount to over half of the total deficit reduction from policy changes that would be needed to balance the budget. However, that share of deficit reduction is disproportionate to the one-third share of total spending for discretionary appropriations. A freeze on discretionary spending through 2002 would also cut its purchasing power in that year by about 14 percent from that available in 1997.

Policymakers must ultimately choose the specific changes needed to balance the budget. But one message is clear: continued restraint in discretionary spending alone will not be enough to balance the budget or to ensure a sustainable fiscal policy over the next three decades. Many people believe that serious efforts to balance the budget by 2002 and beyond need to include structural policy changes that address the growth of mandatory federal spending.

How to Use This Report

Chapters 2 through 4 list specific policy changes that may be made to reduce spending over the five-year period from 1998 through 2002. Chapter 5 discusses broad policy options and integrated approaches for limiting the growth of Medicare and Medicaid. Chapter 6 provides various options for increasing revenues, including options for broadening the tax base that could be part of broader proposals for tax reform.

In Chapters 2, 3, 4, and 6, this volume presents the pros and cons of each option, along with estimates of the effect that it would have on the deficit between fiscal years 1998 and 2002. For each mandatory spending or revenue option, projected savings are computed from baseline levels estimated to occur under current law.[9] For each discretionary spending option, the volume presents two sets of estimates--one shows how much the proposal would save if the 1997 spending level was adjusted for inflation, and the other calculates how much it would save if the 1997 spending level was frozen through 2002. For defense discretionary options, savings also have been computed relative to the President's 1997 defense plan, adjusted for final action in the 1997 appropriation act.

6. Congressional Budget Office, *The Economic and Budget Outlook*, pp. 49-57.

7. The statutory discretionary spending limits for 1998 are below both the inflation-adjusted and freeze levels for discretionary spending for that year. In its overall baseline budget projections, CBO assumes that discretionary spending will be consistent with those limits and will be adjusted for inflation thereafter (see Table 1-1). However, because the limits are not broken down by individual discretionary accounts or programs, CBO calculates projected savings for discretionary spending options in this volume from the inflation-adjusted and unadjusted levels for 1997. Thus, the illustrative path in Table 1-2 is consistent with the way that discretionary savings are calculated in this volume. The President's 1998 budget also measures proposed discretionary savings from an uncapped baseline.

8. Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 1998* (forthcoming).

9. CBO uses revenue estimates provided by the Joint Committee on Taxation.

Chapter 5 discusses broad options for curtailing the growth in federal spending for Medicare and Medicaid over the near term that can provide a basis for longer-term restructuring of those programs. Instead of listing specific policy options for Medicare, the chapter develops integrated packages of options that could yield substantial program savings over the next five to 10 years. The Medicaid discussion also takes a broad perspective on how to contain federal costs, focusing on the extent to which different savings options would change the underlying fiscal relationship between the federal government and the states.

The options stem from various sources, including legislative proposals, the President's budget, previous versions of this volume, CBO staff, other government entities, and private groups. The options are intended to reflect a broad range of possibilities but are neither ranked nor are they necessarily comprehensive. Including or excluding a specific option does not represent an endorsement or rejection of that option by CBO. As a nonpartisan Congressional staff agency, CBO does not make policy recommendations.

CBO has estimated the savings for each option using the budget baseline that incorporates the fiscal dividend of reaching a balanced budget by 2002. Although employing economic assumptions under a balanced budget would affect overall projections of interest rates and economic growth, employing them would affect the savings estimates only for those specific options that are most sensitive to interest rate assumptions--in particular, corporate income tax options.

Readers who choose a path of freezing total discretionary spending as a starting point for developing a comprehensive balanced budget plan must be careful to calculate the savings for individual discretionary options from the unadjusted 1997 level listed for each option. Otherwise, discretionary savings should be calculated using the inflation-adjusted estimates.

In March 1997, CBO will publish a report on the long-term budgetary problems that will arise when the baby-boom generation begins to retire. The policy changes that will be needed to deal with those problems include more fundamental reforms that might take longer to carry out. That report will address in a comprehensive fashion major issues and various options for dealing with long-term trends.

Since last year's volume of *Reducing the Deficit* was published, two advisory bodies have made recommendations to the Congress that bear directly on the issue of achieving a sustainable budget policy for the long term. First, in December 1996, the Advisory Commission to Study the Consumer Price Index (also known as the Boskin Commission) reported that the consumer price index (CPI) overstates the cost of living and thus increases federal spending excessively for those programs to which it is linked. Most economists agree that the CPI overstates the cost of living, but they do not by any means agree on how much. Second, the 1994-1996 Advisory Council on Social Security issued its final report in January 1997. It was unable to reach a consensus and instead submitted three broad approaches for financing Social Security into the next century.

Other General Caveats in Using This Volume

Users of *Reducing the Deficit* should note several other caveats. First, although all of the options devoted to deficit reduction would shave federal interest costs, those savings are not included in the calculations accompanying the individual options. Ordinarily, when CBO receives a detailed budgetary plan, it assesses the savings for each option as in this volume and then computes the additional interest savings (shown as debt service in the illustrative paths in Table 1-2). When such budget packages are put together, one can adjust for any interactions among the parts that would raise or lower the savings--such adjustments cannot be made for the individual options discussed in this volume.

Second, all of the options to reduce grants to state and local governments would affect the financial status of those governments, but that effect is not repeated in each discussion. Furthermore, some of the options affecting states and localities may involve federal mandates. The Unfunded Mandates Reform Act of 1995 establishes procedures intended to control such mandates. It also requires CBO to estimate the costs to states and localities of any mandates imposed by new legislation that the Congress is considering. Individual options do not include estimates of any potential mandates. However, they may discuss related issues where appropriate.

Third, although government assets are sold from time to time, such sales generally cannot be counted to determine compliance either with the statutory discretionary spending limits or with pay-as-you-go procedures. For that reason, CBO has not included any options in this volume for which the sale of assets constitutes the only savings. CBO made that choice mainly because the proceeds from such sales cannot be scored under current budget law. Thus, no judgment is implied concerning the desirability of selling government assets. In fact, by privatizing certain federal functions or activities, asset sales may prompt increased efficiency of operations. In recent budgets, the President has recommended changing the budgetary treatment of asset sales so that they may be counted under the Budget Enforcement Act. Although the 1996 and 1997 budget resolutions have directed that such sales be counted in the Congressional budget process, that directive does not affect their budgetary treatment under the statutory enforcement procedures.

Finally, subsequent CBO cost estimates, which generally accompany any bill reported by a Congressional committee, may not exactly match the numbers shown in this report. The reason is that the policy proposals on which the cost estimates are based may not precisely match the specifications used in developing the options in this volume.

Chapter Two

Defense and International Discretionary Spending

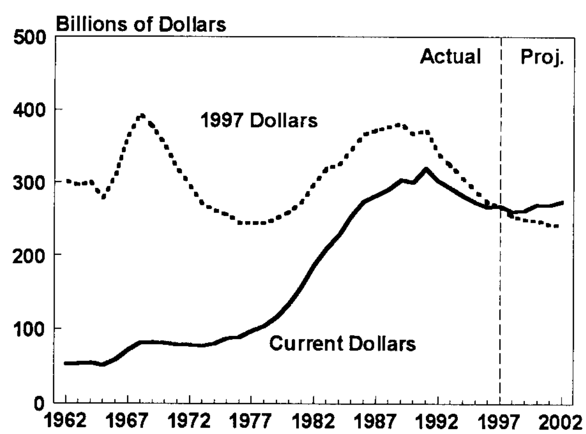
National defense spending, though reduced from Cold War levels, remains one of the larger categories of federal spending. Spending for national defense (budget function 050) represents about one-half of all discretionary outlays--that is, spending that the Congress provides through the annual appropriation of funds (see Figure 2-1). But it is only about one-sixth of all federal spending, a far smaller percentage than in years past. In 1997, outlays for national defense are estimated to be $266 billion out of a discretionary total of $547 billion (see Table 2-1). Spending for national defense embraces not only the Department of Defense's (DoD's) budget but also that portion of the Department of Energy's budget that funds the production, support, and management of the nation's stockpile of nuclear weapons (including environmental cleanup).

This chapter also looks at spending for international affairs, a separate budget category (function 150) that covers both foreign assistance and the conduct of international relations. International affairs is a much smaller budget category than national defense, with discretionary outlays of about $19 billion in 1997.

The National Defense Budget

The defense budget supports national security in several ways. It provides pay and benefits for U.S. military forces; supplies the pay of civilian workers who support the military's operations, as well as other costs for operations and training; and pays the operating costs of the hundreds of military bases and facilities here and abroad. It funds not only procurement of new weapons and equipment to keep military forces at the forefront of technical capability but also the research that creates many of those technical leaps.

Figure 2-1.
Outlays for National Defense
(By fiscal year)



SOURCE: Congressional Budget Office based on data from the Office of Management and Budget and the Department of Defense.

Size and Structure of U.S. Military Forces

One aim of U.S. national security policy is to maintain military forces that are powerful enough to deter potential adversaries from attacking the United States or its allies and to defeat them, should deterrence fail. The collapse of the Soviet Union and the Warsaw Pact removed the single greatest military threat to the United States and its allies in Europe and the Pacific. Since then, military and civilian leaders have sought to recalibrate the military threat the United States faces and the size and number of U.S. military forces appropriate to counter that threat.

The first of those reviews resulted in the Base Force Plan of the Bush Administration. That plan reduced the overall size of the Army and established an enhanced corps of ground forces to respond rapidly to military conflicts. Reductions in Air Force wings and Navy ships, though significant, left forces sufficient to maintain forward presence and to deploy forces quickly in response to crises.

In 1993, the current Administration initiated a broad review, termed the Bottom-Up Review, of the national security situation and U.S. military strategy and forces. That review replaced the Cold War threat of the Soviet Union and its Warsaw Pact allies with a scenario in which the United States would fight two conflicts with regional powers (such as Iraq) nearly simultaneously. Relying on the findings of the Bottom-Up Review, the Administration established requirements for forces that were 30 percent to 40 percent below those of the Cold War era. The process of reducing military forces to those new levels will be nearly complete by the end of 1997.

In response to the Congress's direction, another major review of strategy and forces--the Quadrennial Defense Review--is under way. That review is envisioned as a periodic reassessment of military strategy and force structure. The Department of Defense is engaged in the first step of the process--preparing a report that the Secretary of Defense must transmit to the Congress by May 15, 1997. At that time, an independent commission of experts, named by the President and approved by the Congress, will review DoD's findings and produce its own report by December 1, 1997. Once that report is available, the Congress and the Administration should have a better basis for setting the size and determining the composition of U.S. military forces.

Table 2-1.
Appropriations for National Defense for Fiscal Year 1997 (In billions of dollars)

	Budget Authority	Outlays
Department of Defense		
Military personnel	70.0	70.2
Operation and maintenance	90.9	91.2
Procurement	44.2	45.6
Research, development, test, and evaluation	36.5	33.8
Military construction	6.0	6.4
Family housing	4.1	4.1
Other	1.0	1.5
Subtotal	252.8	252.7
DOE's Atomic Energy Program	11.4	11.9
Other National Defense	1.0	1.0
Total	265.1	265.6

SOURCE: Congressional Budget Office.

NOTE: DOE = Department of Energy.

Strategic Forces

Strategic forces are much reduced from Cold War levels. Since 1990, the United States has nearly halved its force of land-based intercontinental ballistic missiles, reduced the number of bombers committed to strategic missions and taken them off alert status, and reduced the number of submarine-based missiles from 584 to 408 (see Table 2-2). Most strategic analysts believe that those forces still provide a robust deterrent to a direct nuclear attack. All parties have now ratified the first Strategic Arms Reduction Treaty (START I). In 1995, the Congress ratified START II, which would commit the United States and Russia to make even larger reductions in strategic forces, but Russia's parliament has not yet done so. Four options in this chapter

Table 2-2.
U.S. Military Forces (By fiscal year)

	1990	1993	1995	1997	Bottom-Up Review Plan[a]
		Strategic Forces			
Land-Based ICBMs	1,000	787	585	580	500
Strategic Bombers	277	194	140	126	130
Submarine-Launched Ballistic Missiles	584	408	360	408	336
		Conventional Forces			
Land Forces					
Army divisions					
Active	18	14	12	10	10
Reserve[b]	10	8	8	8	5 or more
Marine Corps divisions[c]	4	4	4	4	4
Naval Forces					
Battle force ships	546	435	372	357	346
Aircraft carriers					
Active	15	13	11	11	11
Reserve	1	0	1	1	1
Navy carrier air wings					
Active	13	11	10	10	10
Reserve	2	2	1	1	1
Air Forces					
Tactical fighter wings					
Active	24	16	13	13	13
Reserve	12	11	8	7	7
Airlift aircraft					
Intertheater	400	382	374	345	d
Intratheater	460	380	428	430	e

SOURCE: Congressional Budget Office using data from Office of the Secretary of Defense, *Annual Report to the President and the Congress* (March 1996).

NOTE: ICBMs = intercontinental ballistic missiles.

a. The Bottom-Up Review did not provide goals for all types of forces. Estimates of strategic forces are based on the Nuclear Posture Review, which was completed after the Bottom-Up Review, and assume that the second Strategic Arms Reduction Treaty (START II) enters into force.

b. Excludes 15 enhanced-readiness brigades.

c. Includes one reserve Marine Corps division.

d. The goal for intertheater airlift is expressed as 49.7 million ton-miles a day of transport capability rather than in terms of number of aircraft.

e. No goal has yet been set for intratheater airlift capability.

relate to strategic forces. Option DEF-01 examines the savings that would result from accelerating planned cuts in U.S. strategic forces, and DEF-02 looks at an early cancellation of D5 missile purchases. Option DEF-03 would reduce the scope of the Department of Energy's program for maintaining the stockpile of nuclear weapons. And DEF-04 would limit efforts to build theater missile defense programs.

Conventional Forces

In its Bottom-Up Review, the Administration determined the conventional forces it believes the United States would have to deploy to win two nearly simultaneous regional conflicts. Those forces include 10 active Army divisions supplemented by 15 Army National Guard brigades and other reserve combat and support units. The eight Guard divisions that represent the largest component of reserve combat units were not allocated a role in meeting the two-conflict threat; instead, they were defined as the nation's strategic reserve. The Navy will retain 11 active aircraft carriers plus one reserve carrier for training and local contingencies. And the Air Force will keep 13 active tactical fighter wings, with another seven in the reserve forces. By September 1997, most conventional military forces will have been cut to their target levels (see Table 2-2). Several options examine the implications and savings of further reducing conventional forces. DEF-06 would reduce the number of carriers by two and the number of carrier air wings by one. DEF-11 would reduce Air Force tactical air wings to a total of 18, two less than the force level in the Bottom-Up Review. DEF-17 would eliminate two of the 10 active divisions, and DEF-18 would cut four of the eight Guard divisions.

Modernization

Spending for weapon systems in recent budgets is down more than 50 percent from Cold War levels. The deep cuts DoD made in its forces have enabled it to sharply reduce purchases of ships, planes, and fighting vehicles without creating a shortage of equipment. DoD leaders, however, have identified a need to resume purchasing many of those items beginning around the end of this decade. General John Shalikashvili, Chairman of the Joint Chiefs of Staff, has called for procurement budgets of $60 billion a year, 55 percent more than the Administration requested for 1997. Several of the options presented in this chapter would either defer or cancel some of the programs responsible for that projected increase. DEF-05, for instance, would cancel the Navy's New Attack Submarine program, and DEF-07 would slow the Navy's purchases of destroyers. DEF-12 and DEF-19 would cancel the Air Force's F-22 fighter acquisition program and the Army's Comanche helicopter program, respectively.

Although procurement has fallen sharply, DoD acquisition managers have followed a policy of maintaining a relatively high level of research and development (R&D) spending. That policy was seen as key to keeping the United States at the technological forefront for future weapons while production of earlier generations of weapons was coming to a close. But the Administration's budget projections for the rest of the decade suggest that R&D spending will decline considerably through 2000 as several major weapon systems currently in development move to the procurement phase. That shift, together with a boost in procurement spending in future budgets, will return R&D spending to close to its historical level of about one-fourth of procurement spending. DEF-20 would reduce spending for dual-use technology programs.

The Bottom-Up Review also identified a need to improve the military's ability to deploy forces rapidly to two theaters. That review called for enhancing the strategic mobility forces by adding more Air Force airlift aircraft and Navy and Ready Reserve Force cargo ships and by prepositioning material abroad and at sea. DEF-13 identifies an alternative to the Administration's plan to purchase the C-17 airlifter, and DEF-14 would slow DoD's efforts to modernize tactical airlift forces.

Roles and Missions

The Commission on Roles and Missions of the Armed Forces was established by the Congress in 1994 to review all aspects of the organization of the Department of Defense to identify opportunities to consolidate activities and improve efficiency. It looked at such matters as the duplication of military missions among the services and the possible integration or privatization of support activities such as training, maintenance, and intelligence gathering. Some of the options described in this chapter are drawn from previous CBO analyses

of the issues related to the services' roles and missions. DEF-16, for instance, would make the Army responsible for close air support, eliminating an Air Force mission. DEF-27 would combine the Army National Guard and the Army Reserve.

Pay and Benefits of Military Personnel

Options DEF-21 through DEF-27 present ways to reduce spending for military personnel. Some of those options would reduce elements of military compensation, including the housing allowance (DEF-22), the subsistence allowance (DEF-23), and special bonus pay for nuclear-trained Navy officers (DEF-25). Another option would reduce the number of military personnel needed to staff the forces and activities of the military (DEF-21). DEF-24 looks at a cheaper way to supply the military with new officers.

Health care is a $15 billion item in the defense budget--roughly $5 billion to pay uniformed medical personnel and $10 billion to operate military health care facilities and pay for care provided by the private sector. Much of that spending is for the care of the dependents of active-duty personnel as well as retirees and their families. Four options (DEF-28 through DEF-31) address the military's spending for health care. (For options dealing with veterans' benefits--a separate budget category from national defense--see Chapter 4.)

Operation and Maintenance

Operations consume the largest share of the defense budget and may offer the greatest opportunities to achieve efficiencies without cutting military capability (see Table 2-1). CBO's options examine ways to consolidate activities among the military services or to turn activities over to the private sector. The options focus on professional military education (DEF-33), military housing (DEF-35), and commissaries and exchanges (DEF-36 and DEF-37). Those options have little direct connection to the readiness of military forces: instead, they are oriented toward achieving efficiencies in the infrastructure that supports the forces.

The International Affairs Budget

The international affairs budget for 1997 totals $18.3 billion in discretionary budget authority and results in outlays of $19.3 billion (see Table 2-3). Those outlays represent 1.2 percent of total federal outlays and 4 percent of total discretionary outlays in 1997. Altogether, international programs consume about 0.25 percent of the nation's gross domestic product.

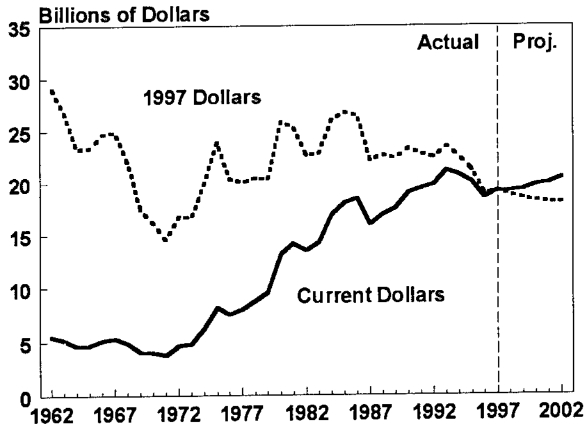
International affairs spending has risen and fallen in waves that reflect the relative emphasis on using foreign assistance to promote U.S. security and to enhance world stability (see Figure 2-2). In 1962, for instance, spending for international affairs totaled $5.5 billion--equivalent to $29 billion in 1997 dollars. That amount represented 7.6 percent of total discretionary outlays and 1.0 percent of gross domestic product in 1962. During most of the 1960s, spending for international affairs declined both absolutely and as a share of the budget, reaching a low of $14 billion (in 1997 dollars) in 1971.

Table 2-3.
Appropriations for International Affairs for Fiscal Year 1997 (In billions of dollars)

	Budget Authority	Outlays
International Development and Humanitarian Assistance	6.8	7.8
International Security Assistance	5.9	5.9
Conduct of Foreign Affairs	3.9	4.0
Foreign Information and Broadcasting Activities	1.1	1.2
International Financing Programs	0.6	0.4
Total	18.3	19.3

SOURCE: Congressional Budget Office.

Figure 2-2.
Outlays for International Affairs
(By fiscal year)



SOURCE: Congressional Budget Office based on data from the Office of Management and Budget.

From that level, spending rose by three-quarters in the 1970s, reaching $25.9 billion (in 1997 dollars) in 1980. Part of that increase reflected much greater levels of economic assistance for Egypt and Israel, agreed to as part of the Camp David Accords. In the 1980s and 1990s, real spending for international affairs has fluctuated between $19 billion and $27 billion.

Options dealing with the international affairs budget are presented in DEF-38 through DEF-43. Those options cover a variety of topics, including activities of the State Department, funding for multilateral development banks, exports of military equipment, and U.S. information programs abroad. Savings for each option are presented in two ways: against the 1997 level of funding for the program, and against the 1997 level of funding for the program adjusted for inflation.

How to Use and Combine Savings Estimates

The table at the beginning of each option displays the savings it would generate through 2002. To define savings, it is necessary to have a starting point. As just noted, savings for international programs are expressed either as savings from the 1997 level of spending or as savings from that level adjusted for anticipated inflation. For defense programs, savings have been computed relative to spending detailed in the Administration's plan for 1997 through 2002 (the 1997 plan), after adjusting for Congressional action on the 1997 budget.

Users of this volume may wish to combine several options into a package of deficit reduction measures. The options selected should not include those that are mutually exclusive or that may overlap, resulting in the double-counting of savings. Subject to that caution, the resulting effects on future deficits may be estimated as follows.

First, select a baseline from which to start. CBO has projected future deficits under two assumptions about overall discretionary spending: one adjusts spending for inflation, the other freezes discretionary spending at the 1997 level through 2002 (see Table 1-2 in Chapter 1). Both are based on economic assumptions consistent with balancing the budget by 2002.

Second, decide whether to include the savings (or costs) of the Administration's 1997 defense plan. Measured against the inflation-adjusted baseline, the 1997 plan generates five-year total savings of $100 billion in outlays (see Table 2-4, which shows the year-by-year details). Users of this volume who start from the baseline adjusted for inflation can, if they choose, subtract the annual savings reflected in the President's 1997 plan from the projected deficits shown in Table 1-2. (By doing so, they implicitly accept all of the Administration's policy actions that are needed to reduce spending by $100 billion.) Users who select the baseline that freezes discretionary spending at the 1997 level, however, should make a different set of adjustments to the projected deficits associated with that baseline. Measured against the frozen baseline, adhering to the Administration's 1997 defense plan will add a net amount of $1.6 billion to the deficit over five years (see Table 2-4). Although the plan's projections are lower than the baseline for 1998 through 2000, projections for the entire 1998-2002 period average slightly more than the 1997 appropriated level.

The third step in the process is to combine the additional savings that the selected options provide and then subtract the totals from the stream of deficit projections that results from the first two steps. Savings from indi-

vidual options may be applied no matter which baseline concept is adopted as a starting point.

Of course, the Department of Defense's plans change from year to year. For some of the options, the Administration's new program for 1998 through 2003 (the 1998 plan) is significantly changed from the 1997 plan. Those changes may increase or reduce CBO's estimates of savings. Readers using the details of this volume to estimate savings relative to the Administration's 1998 plan should refer to the savings estimates for those options shown in Appendix A.

Table 2-4.
Alternative Budget Paths for National Defense (By fiscal year, in billions of dollars)

	1997	1998	1999	2000	2001	2002
			Budget Resolution for 1997			
Budget Authority	265.6	268.2	270.8	273.3	276.0	278.8
Outlays	264.1	263.0	266.3	270.0	269.0	269.0
			CBO's Projections for National Defense			
1997 Funding Level Adjusted for Inflation						
Budget authority	265.1	272.7	281.0	289.4	298.1	307.2
Outlays	265.6	269.5	276.7	287.1	288.9	300.3
1997 Funding Level						
Budget authority	265.1	265.3	265.4	265.5	265.5	265.6
Outlays	265.6	264.6	264.9	267.0	261.5	263.6
			Administration's 1997 Plan			
Budget Authority	254.3	258.5	263.8	270.3	279.4	287.8
Outlays	260.8	256.3	257.8	263.3	266.6	278.2
			Savings or Costs (-) Reflected in the Administration's 1997 Plan			
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	n.a.	14.2	17.2	19.1	18.7	19.4
Outlays	n.a.	13.2	18.9	23.8	22.3	22.1
From the 1997 Funding Level						
Budget authority	n.a.	6.8	1.6	-4.8	-13.9	-22.2
Outlays	n.a.	8.3	7.1	3.7	-5.1	-14.6

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

DEF-01 REDUCE NUCLEAR DELIVERY SYSTEMS WITHIN OVERALL LIMITS OF START II

Savings from the 1997 Plan	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	366	506	1,411	1,595	1,232	5,110
Outlays	100	282	646	1,077	1,318	3,423

With the end of the Cold War, the nuclear superpowers have begun to scale back the size of their nuclear arsenals. If put into effect, the second Strategic Arms Reduction Treaty (START II), which was completed in 1993, will require that long-range nuclear forces be cut to roughly two-thirds of their 1990 levels by early in the next century. The United States and Russia have begun to plan their nuclear forces within the framework provided by both of the START accords; Ukraine's decision of November 1994 to sign the Nuclear Non-Proliferation Treaty should greatly help to implement both START treaties. START II was ratified by the Senate in January 1996 but faces an uncertain future in Russia's parliament.

The Administration currently plans to deploy a strategic force in 2003 with 450 to 500 Minuteman III ICBMs (intercontinental ballistic missiles, each carrying a single warhead, although they can carry three), 66 B-52H bombers (each carrying an average of no more than 15 warheads), 20 B-2 bombers (each carrying 16 warheads), and 14 Trident submarines (each carrying 120 warheads). That force is based on the Pentagon's 1994 review of U.S. nuclear doctrine and forces (the Nuclear Posture Review). Overall, the United States would deploy almost 3,500 warheads--the maximum number allowed by START II.

This option would keep the same number of warheads that the Administration plans under START II, but it would load the warheads on fewer missiles and submarines and thus would retire some platforms that the Administration proposes to retain in its plan. Under this option, the United States would retire four Trident submarines and 200 Minuteman III ICBMs relative to the plan (assuming that 500 ICBMs would have been deployed). It would preserve 300 Minuteman III ICBMs and 10 Trident submarines, each loaded with 24 missiles. The number of warheads deployed on the smaller Trident force would stay at the level planned by the Administration (1,680) by increasing the number of warheads on each missile from five to seven (see DEF-02). Like the Administration's plan, this option would retain 66 B-52H nuclear bombers, but they would carry an average of 16 warheads each for a total of 1,056 warheads. It would also keep 20 B-2 bombers, each loaded with 16 warheads--the same number planned by the Administration. Thus, the total strategic nuclear force proposed in this option would carry almost 3,400 warheads--roughly 100 fewer than the Administration proposes. Furthermore, no weapon system would be deployed with more warheads than it was designed to carry.

Compared with the Administration's plan, this option could save $366 million in budget authority in 1998 and $5.1 billion over the next five years. Savings in outlays would be smaller: $100 million in 1998 and $3.4 billion through 2002. Those savings would come from reduced operation and support (O&S) costs and lower levels of investment. The O&S savings reflect the retirement of 200 Minuteman ICBMs and the early retirement of two Trident submarines. Investment savings would be achieved by canceling production of D5 missiles after buying seven missiles in 1997, extending the service life of fewer Minuteman missiles, and forgoing the Administration's plans to reconfigure two Trident submarines so that they can carry new D5 missiles. Savings from retiring two additional Trident submarines would occur after 2002.

During the Cold War, this option might have raised concerns about stability. By putting more nuclear "eggs" in fewer baskets, the United States would have increased its vulnerability to a surprise attack. But today, with the most destabilizing nuclear modernization

programs in the former Soviet Union terminated, fewer weapons at high states of readiness, and the end of the military competition between the North Atlantic Treaty Organization and the Warsaw Pact in Europe, those concerns have become less acute. The United States may now decide that it can save money safely by deploying its warheads on fewer weapon systems.

This option would also preserve flexibility for future developments. For example, it would retain three types of nuclear systems (the so-called triad) despite the recommendations of some analysts that all ICBMs be retired in order to save money. Retaining all three types provides a margin of security against an adversary's developing a new technology that might render other legs of the nuclear triad more vulnerable to attack. In addition, although ICBMs are considered the most vulnerable portion of the triad, at least a fraction of them would be able to survive virtually any type of attack by any country, even if they had been taken off alert.

Against this option's advantages, the Congress would have to balance a number of disadvantages. Carrying more warheads on bombers and submarines would diminish the targeting flexibility of U.S. planners. Unilaterally reducing the ICBM and ballistic missile submarine forces would also limit the ability of the United States to increase significantly the number of warheads it deployed in the event that Russia decided suddenly not to abide by START II. Indeed, some critics of this option and the Administration's plan argue that the United States should not relinquish any capability until Russia has fully complied with START I and ratified START II, because such a unilateral reduction would diminish U.S. leverage to persuade Russia to reduce its forces. Finally, by deploying fewer ICBMs, this option would reduce the forces that could be placed most easily in a nonalert but survivable status, an approach that some analysts have proposed recently to lower the chances of an accidental nuclear war.

DEF-02 TERMINATE PRODUCTION OF D5 MISSILES AFTER 1997

Savings from the 1997 Plan	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	300	290	1,036	1,089	673	3,388
Outlays	61	148	388	680	822	2,099

The D5 missile, also called the Trident II missile, is the most accurate and powerful submarine-launched ballistic missile (SLBM) in the U.S. inventory. The result of more than 15 years of research and development, it is the keystone of the Navy's plan to modernize its ballistic missile force. Because of its accuracy and the size of its warheads, the D5 is the first submarine-launched missile that is capable of destroying very hard (or counterforce) targets such as missile silos and command bunkers. That capability has allowed the Navy to assume some of the counterforce missions that previously could be carried out only by the Air Force's land-based intercontinental ballistic missiles and long-range bombers.

The Administration's plan, which reflects the results of the recent Nuclear Posture Review, assumes that the Navy will reduce the Trident force to 14 submarines by 2003, when the United States must fully implement the second Strategic Arms Reduction Treaty (START II). Each submarine will carry 24 D5 missiles. The Navy currently has eight Trident submarines that carry C4 missiles and by 1998 will have a fleet of 10 additional Tridents armed with the more modern D5 missile. To achieve its 14-boat fleet, the Navy will retire the four oldest C4-capable submarines in 2002 and 2003 and convert the other four to carry D5 missiles (one each in 2000, 2001, 2004, and 2005). To support that force, the Navy plans to buy a total of 434 D5 missiles. It has already bought 350 missiles and plans to purchase seven more in 1998 and a total of 84 more through 2005. To keep the number of U.S. warheads near the ceiling allowed by START II, which limits the number of warheads on submarine-launched ballistic missiles to 1,750, the Navy will probably reduce the number of warheads per missile from eight to five (for a total of 1,680 warheads).

This option would terminate D5 production after 1997 and retire all eight C4 submarines. The Navy would have 350 D5 missiles--three more than the number that it says it would need to support a 10-submarine force in light of its recent decision to reduce the number of D5 test flights to four a year. Like the Administration's plan, however, this option would not retire the C4 submarines until after the turn of the century, both to encourage Russia's compliance with START II and to retain the flexibility for the United States to remain at higher START I levels if Russia does not comply. To keep warheads at the level planned by the Administration under START II, this option would increase the number of warheads on each missile from five to seven.

Relative to the Administration's plan, this option would save $300 million in budget authority in 1998 and $3.4 billion through 2002. Outlays would be reduced by $2.1 billion through 2002. Most of those savings would be from canceling missile production. In addition, retiring C4 submarines in 2000 and 2001 rather than upgrading them would save about $400 million to $500 million in each of those years. This option would create significant savings beyond 2002 because it would operate fewer submarines and avoid the cost of modifying C4 submarines and purchasing D5 missiles.

Several drawbacks are associated with terminating production of D5 missiles. Increasing the number of warheads per missile from five to seven would reduce the range of the missiles by roughly 20 percent. That would limit the areas of the ocean in which submarines could operate, thereby making the fleet more vulnerable. Furthermore, it would reduce the targeting flexibility of the force because missiles with fewer warheads can cover more widely dispersed targets. Also, requiring the Navy to deploy D5 missiles with seven war-

heads would constrain the United States' ability to increase sharply the size of its SLBM force by adding back the extra warheads if Russia broke out of START II or never ratified the treaty, a central concern of some critics of this option. (See Congressional Budget Office, *Rethinking the Trident Force*, July 1993, for more details about the effects of this and other options for reducing the costs of the Trident force.) In addition, reducing the force from 14 to 10 submarines may increase its vulnerability to attack by Russia's antisubmarine forces. Critics also worry that terminating the production of the D5 missile early would leave the United States unable to produce new SLBMs without an expensive rebuilding program.

Nevertheless, terminating D5 production may be acceptable given the marked reduction in the chances of nuclear war between the superpowers. In that environment, the capability retained under this option for Trident submarines to destroy hardened targets may be judged sufficient to deter nuclear war. Although the range of the missiles and the size of submarine patrol areas would be smaller under this option than under the Administration's plan, they would still exceed those planned during the Cold War when Russia's antisubmarine capability was greater and the United States intended to deploy the D5 with eight large warheads (W-88s).

The targeting flexibility given up by this option might not significantly reduce the ability of the SLBM force to deter nuclear war. It is not clear that the force of 1,680 warheads that the Administration plans to deploy on its Trident fleet under START II will deter an adversary more effectively if they are deployed on 336 missiles rather than on the 240 called for in this option. The diminished likelihood of nuclear war with Russia may also have weakened the rationale for the United States to deploy only five warheads on each D5 missile in order to retain its ability to increase U.S. nuclear forces rapidly. Moreover, the United States could increase the number of warheads on land-based ballistic missiles and bombers if Russia violated START II. Finally, supporters of this option would argue that the aerospace companies involved in refurbishing the Minuteman III and building boosters for space launchers will maintain enough skilled workers so that production of a new SLBM could be started in time to replace the missiles lost as Trident submarines begin to retire during the next century.

DEF-03 REDUCE THE SCOPE OF DOE'S STOCKPILE STEWARDSHIP AND MANAGEMENT PROGRAM

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	267	387	429	681	964	2,728
Outlays	200	357	419	618	893	2,487

NOTE: Savings relative to the Administration's 1998 plan appear in Appendix A.

For the first four decades of the nuclear age, the United States developed, tested, and produced nuclear weapons for its arsenal. The Department of Energy (DOE) and its predecessors have been responsible for that task. During much of the Cold War, the arsenal held over 25,000 warheads of more than a dozen different types. The weapons were designed and developed at the three weapons laboratories (Los Alamos, Lawrence Livermore, and Sandia) and tested at the Nevada Test Site; materials and components for the weapons were produced at more than a dozen facilities across the country.

The end of the Cold War has changed the requirements for the arsenal. In response to the second Strategic Arms Reduction Treaty (START II), the United States plans to keep roughly 5,000 warheads of seven different types in its active inventory beyond 2003. DOE has started to consolidate its production facilities as it adjusts to its declining workload.

The United States, along with all other declared nuclear powers except China, has also unilaterally halted all underground testing. To establish a permanent worldwide moratorium, the United Nations' Conference on Disarmament negotiated the Comprehensive Test Ban Treaty (CTBT), which will make it difficult for any country to develop new weapons. President Clinton signed the treaty in September 1996 but has not yet submitted it to the Senate for ratification.

To preserve its ability to ensure, over the long run, the reliability and safety of the weapons that remain in the nuclear stockpile under a CTBT, the Department of Energy has developed a stockpile stewardship and management program. One goal of that program is to increase funding for activities such as computer simulations, nonexplosive nuclear testing, and fusion research that will become increasingly important for ensuring the reliability of the stockpile in the absence of underground testing. Another goal is to ensure that the weapons labs continue to attract talented scientists by providing challenging work and state-of-the-art facilities. A third goal is to develop facilities that will produce the necessary nuclear and nonnuclear components to replace parts, thus ensuring reliability.

To carry out this plan, DOE will continue to operate both of its weapons design labs (Los Alamos and Lawrence Livermore) and its engineering lab (Sandia). It will also construct several new facilities to provide data on the reliability and safety of weapons as they age. Those facilities include the Dual-Axis Radiographic Hydrotest (DARHT) facility at Los Alamos for hydrodynamic tests and the National Ignition Facility (NIF) at Lawrence Livermore for research on the fusion portions of the weapons. In addition, DOE will conduct "zero-yield" tests at the Nevada Test Site so that it can retain enough skilled technicians to resume testing--as directed by the President--if the United States withdraws from the CTBT for reasons of supreme national interests.

According to the 1997 plan for stewardship, DOE will spend \$1.7 billion in 1998 for what has been known historically as weapons research, development, and testing (RD&T), or about \$600 million less (after adjusting for inflation) than it spent in 1988 when the laboratories were still operating at a Cold War pace. However, the annual expenditures for RD&T under the Administration's plan, after adjusting for inflation, will still be about the same as in 1980 when the United States was both designing new warheads and maintain-

ing an arsenal of some 25,000 warheads. Further reductions in spending may therefore be possible.

DOE's 1997 plan called for spending about $2 billion in 1998 to manage the stockpile and $2 billion or more each year thereafter. That spending includes an average of nearly $500 million a year through 2002 to develop a new source of tritium, a radioactive gas that is used in all U.S. nuclear weapons and decays at the rate of 5.5 percent a year. Tritium is produced by bombarding special targets with neutrons. The neutrons could come from an accelerator or from the fissioning of uranium atoms within a commercial nuclear reactor. DOE recently decided to work on both technologies through 1998, at which point it will make a decision about which one to develop fully.

This option would reduce the scope of the stewardship program by consolidating the two design laboratories and forgoing all testing activities at the Nevada Test Site. It would also reduce the cost of managing the stockpile by canceling the development of a tritium production accelerator and relying instead on less costly commercial reactors. Taken together, the changes in this option would save $200 million in outlays in 1998 and $2.5 billion through 2002 compared with the Administration's 1997 plan. Measured against the 1998 plan, five-year savings would be about $730 million lower. That plan excludes much of the funding that will eventually be required to develop the tritium accelerator. Savings are actually greater in 1998 and 1999 because the 1998 plan fully funds early design activities.

For illustrative purposes, the above savings assume that weapons design activities would be consolidated at Los Alamos over a period of five years; Lawrence Livermore would no longer have the designing of nuclear weapons as its primary focus. Los Alamos designed the majority of nuclear weapons that are likely to remain in the stockpile. To ensure that the other warhead types could be reliably maintained, some designers from Livermore would have to move to Los Alamos. This option would also maintain a cadre of weapons scientists at Livermore to provide peer review for Los Alamos's efforts. To provide those scientists with challenging work, Livermore would retain substantial computational facilities for modeling the complex processes inside nuclear weapons and would proceed with DOE's plans to build the National Ignition Facility. (The savings would be lower if stewardship activities were consolidated at Lawrence Livermore because that would involve moving more facilities and relocating more weapons designers. Also, the environmental issues raised by introducing new nuclear facilities into the populous area surrounding Livermore could prove difficult to overcome.)

Finally, by canceling the program to develop an accelerator to produce tritium and instead producing tritium in commercial reactors, this option would save $190 million in 1998 and about $2 billion through 2002 relative to the 1997 plan. Eventually, operating savings could total more than $100 million a year.

The central question underlying this option is, What is required to ensure the reliability and safety of the stockpile in the future if the current moratorium on underground nuclear testing is made permanent? DOE's stewardship and management program is the Administration's answer. This option preserves much of what the stewardship plan calls for, including DARHT and NIF, but does not preserve readiness at the Nevada Test Site or fund two full design labs. It also opts for an inexpensive source of tritium.

Some people may feel that this option cuts the program too deeply. They believe that DOE's stewardship program is the minimum effort necessary to maintain the stockpile without underground testing. Cuts would not be prudent, they argue, because scientists will need new facilities to obtain data on reliability that was formerly provided directly by underground nuclear testing.

Supporters of DOE's stewardship program also object to the consolidation proposed here. In their view, two design laboratories are essential for providing a robust stewardship program: competition and peer review will be even more important in the absence of underground testing. Furthermore, they argue, refocusing the efforts of one lab away from weapons research will eliminate its central unifying mission (and thus its motivation for excellence) without replacing that focus with an equally important mission. Consolidation will also result in the loss of some facilities that cannot easily be transferred to the other lab. For many of these reasons, the President recently directed DOE to retain both labs. Advocates of the stewardship program also disagree with this option's proposal to close the Nevada Test Site because doing so would increase the time required to resume underground testing if Rus-

sia started a new arms race or the United States discovered a serious problem with its stockpile that could only be corrected by testing. Perhaps equally important to them, closing the Nevada Test Site would restrict the ability of weapons scientists to conduct "subcritical" experiments to learn more about the effects of aging on plutonium.

Other people argue that the stewardship program should be cut further than suggested in this option. Some believe that keeping part of a second lab, increasing money for basic stewardship, and building DARHT and the $1.2 billion National Ignition Facility are unnecessary to support the stockpile. In their view, those facilities may allow DOE scientists to continue designing and testing weapons and to circumvent the test ban treaty. Even if DOE has no intention of designing new weapons, they argue, the perception of such a capability may make it difficult to convince nonnuclear countries--from whom the United States would like continuing support for the Nuclear Non-Proliferation Treaty--that the United States has really given up testing. Other critics contend that the nation cannot afford to keep a portion of a second design lab or NIF; they argue that if NIF can help scientists understand how to harness fusion for civilian energy, as supporters claim, it should be funded outside the nuclear weapons program.

There are several reasons to continue developing an accelerator for producing tritium. Although DOE has explored the idea of buying services from commercial reactors, and utilities that operate the reactors seem enthusiastic, forgoing the accelerator may be premature until DOE is certain that bureaucratic and political hurdles can be addressed and that commercial services will be available. Moreover, some groups argue that relying on commercial reactors to produce tritium will complicate efforts to control the spread of nuclear weapons because it blurs the distinction between military and civil nuclear programs. An accelerator is also appealing because it will not produce the radioactive waste that a reactor generates.

DEF-04 FOCUS THEATER MISSILE DEFENSE EFFORTS ON CORE SYSTEMS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	404	547	499	397	484	2,331
Outlays	196	416	484	440	448	1,984

NOTE: Savings relative to the Administration's 1998 plan appear in Appendix A.

The Strategic Defense Initiative, which President Reagan started in 1983, focused solely on protecting the United States from a deliberate large-scale attack by Soviet ballistic missiles. The Bush Administration added an effort to protect U.S. troops and allies' civilian populations from attack by shorter-range "theater" missiles such as the Scuds used in the Persian Gulf War. The Clinton Administration--citing the urgency of the threat posed by theater ballistic missiles and the end of the Cold War--has reoriented the program to give priority to developing theater missile defenses (TMDs). It has also de-emphasized the effort to develop so-called national missile defenses, delaying indefinitely a decision to deploy defenses to protect the United States against longer-range missiles. To reflect those changes, it has renamed that effort the Ballistic Missile Defense (BMD) program. This option would make cuts in theater missile defenses.

According to its 1997 plan, the Administration will spend about $15.5 billion for all BMD efforts from 1998 through 2002--an average of roughly $3.1 billion a year. About $2.1 billion of that amount will be spent by the Ballistic Missile Defense Organization on TMD each year. The remaining $1 billion will be spent each year on research and technology development for national missile defenses, management and support, and missile defense activities funded by the military services.

Under its restructured TMD program, the Administration will deploy a core package that includes both point defenses (which can protect relatively small targets like airfields or command facilities) and area defenses (to protect areas a few hundred kilometers in diameter). Specifically, the Army will deploy a point defense called the Patriot Advanced Capability 3 (PAC-3) and an area defense called Theater High-Altitude Area Defense (THAAD). The Navy will develop a sea-based point (or lower-tier) defense using the Standard missile that it deploys on its Aegis destroyers and cruisers.

In addition to the core systems, the Administration plans to continue developing three advanced-capability theater defenses: a Navy sea-based area defense; a mobile Army point defense formerly called the Corps Surface-to-Air Missile (Corps SAM) and now known as the Medium Extended Air Defense System; and an Air Force airborne laser designed to destroy missiles early in their flight, before they can dispense submunitions and decoys that might overwhelm ground-based defenses.

To increase the area that THAAD and the Navy's area defense can protect, the Administration is developing space-based sensors, a constellation of satellites called the Space and Missile Tracking System (also known as Brilliant Eyes). The Administration will also develop a battle management system to enable the TMD systems to function effectively together. Finally, the Administration plans to continue paying for much of Israel's effort to develop the Arrow missile as an area defense system.

Some Members of Congress have expressed concern about the cost of developing so many apparently redundant systems, including both land- and sea-based point and area defenses. Some Members also question why the United States should bear all of the cost to develop area defenses like THAAD that will be used primarily to protect the civilian populations of other na-

tions. Other critics are concerned that the Brilliant Eyes space-based sensor, the Navy's upper-tier defenses, and the airborne laser proposed by the Administration will violate the terms of the Anti-Ballistic Missile (ABM) Treaty.

This option would save money by developing only the Administration's original three core TMD programs (PAC-3, the Navy point defense, and THAAD) and a battle management system. The three advanced-capability systems and Brilliant Eyes would be canceled. This option would continue all other TMD research and non-TMD programs at the Administration's planned level but would eliminate funding for Israel's Arrow missile. Relative to the Administration's plan for 1997, those actions would save $196 million in 1998 and nearly $2 billion over five years. Relative to the 1998 plan, total savings would be higher by $125 million in 1998 and $1 billion through 2002. The Administration increased funding for the airborne laser, the Navy's area defense, and the Space and Missile Tracking System--three of the systems this option would cancel.

By canceling the Navy's upper-tier defense system, this option would reduce the flexibility of U.S. commanders during a crisis. Although sea-based defenses are limited to defending coastal regions, they can be deployed to a region quickly and do not require access to secure airfields to be airlifted into the theater--a limitation of land-based systems like THAAD if they are not already deployed in the region. The United States can also deploy sea-based defenses without having to obtain basing rights in another country, a process that could cause domestic political difficulties for some friendly governments. This option would preserve the capability to defend small areas such as ports or amphibious landings from the sea with the Navy's lower-tier point defense. But without the Navy's upper-tier system, the United States would not be able to defend larger areas such as cities until THAAD could be deployed. Nor could it use forward-based ships to defend large areas of Europe or Japan against attack from the Middle East or North Korea, respectively. The Congress is sufficiently impressed with the potential of the Navy's upper-tier system that it asked the Administration to make that system a core program immediately.

Changes under this option would also limit the area that could be defended by the remaining systems. Canceling Brilliant Eyes would limit the area that THAAD could defend because ground-based sensors would take longer to detect and track incoming missiles, thereby reducing the range at which those missiles could be intercepted. Canceling Brilliant Eyes could also affect the capability of a future national missile defense system, if the United States eventually chose to deploy one. In addition, terminating the airborne laser program would halt work on a system that has the potential to be effective against missiles armed with nuclear or chemical warheads, if technical problems can be overcome. Finally, cutting off funding for Israel's Arrow area defense missile would jeopardize a critical program for one of the United States' closest allies, which currently faces a real threat from ballistic missiles.

Notwithstanding those disadvantages, under this option the United States would still deploy capable land- and sea-based point defenses, a land-based area defense, and a battle management system, all according to the schedule proposed by the Administration. By eliminating all TMD funding beyond the core systems, this option would halt several programs early in their development phase. In addition to the savings over the next five years, those actions could save significant sums beyond 2002, when Brilliant Eyes and one or more of the advanced TMD systems would have entered full-scale development and production. This option would also eliminate payments to Israel to support development of the Arrow missile. In this period of tight budgets, it may be inappropriate to spend U.S. funds to develop a foreign system that the United States has no intention of buying.

In addition to lowering costs, this option would address critics' concerns that several of the planned TMD systems would violate the ABM treaty. Many ABM supporters argue that by effectively substituting for ABM radars, Brilliant Eyes would significantly increase the area that THAAD or the Navy's upper-tier system could defend and thus would violate the treaty. The contractor building THAAD has stated that the system's capability does not depend critically on Brilliant Eyes and that such sensors are needed only to defend the large areas required for national missile defenses. Since the Administration has delayed indefinitely a decision to deploy national missile defenses, space-based sensors such as Brilliant Eyes may not be required for many years, if at all. Terminating the Navy's upper-tier defense would address concerns

about its ability to defend large areas against intercontinental missiles--concerns that have been heightened by the Navy's claims that Aegis ships could indeed defend the United States against a limited ballistic missile attack. Halting the development of the airborne laser would also address concerns about its compliance with the ABM treaty.

DEF-05 CANCEL THE NEW ATTACK SUBMARINE

Savings from the 1997 Plan	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	2,859	248	2,240	257	3,436	9,040
Outlays	302	867	881	1,253	971	4,274

NOTE: Savings relative to the Administration's 1998 plan appear in Appendix A.

As part of the overall reductions in military forces, the Navy is reducing its attack submarine force from 80 ships in 1996 to between 45 and 55 by 1999. To meet the overall force goal, the Navy is decommissioning some of its Los Angeles class (SSN-688) submarines before the end of their 30-year service life. At the same time, however, the Joint Chiefs of Staff (JCS) believe that the Navy will need 10 to 12 very quiet submarines by 2012 to compete with Russia's submarines, which have become quieter, making them harder to locate and track. To meet that goal and to maintain the industrial base for building submarines, the Navy is producing three Seawolf class submarines and is designing the New Attack Submarine (NSSN) to be their lower-cost successor.

The NSSN is the first submarine that will be less capable in many ways than its predecessor. It will be as quiet as the Seawolf but will be smaller and slower, carry fewer weapons, and not be able to dive as deep. Although the Seawolf was optimally designed for its primary mission of countering the more severe threat from Russia's submarines in the open ocean, the NSSN is being developed to operate in littoral waters close to potential regional foes.

Under the Clinton Administration's 1996 plan, the Navy purchased the third and last Seawolf in 1996 and planned to purchase the initial NSSN in 1998, the second in 2000, and two ships a year thereafter beginning in 2002. In the 1996 defense authorization act, the Congress instructed the Navy to gradually redesign the NSSN while producing one improved ship each year from 1998 to 2001. The design for producing the new submarine, which would cost less and be more capable than the NSSN, will not be selected before 2002. The Administration's 1997 plan incorporated but did not fund the two additional submarines in 1999 and 2001 that the Congress wanted. Its 1998 plan funds all four ships, but does so over a five-year period, skipping 2000. Procurement of more than one ship a year will begin no earlier than 2004.

The Congress revised the Administration's plan because it was concerned about both the design and the cost of the NSSN. The 1995 conference report on defense appropriations reflected the conferees' concern that the Navy could not afford the research, development, and production costs. The Navy projected that completing the research and development (R&D) program would cost $2.9 billion and that producing the first ship would cost $3.2 billion (in 1998 dollars), though the Navy believed it could lower that cost to $1.6 billion per ship by the time the fifth ship was purchased. The conference report also noted that the Navy would not need to proceed with the NSSN for nearly 10 years to meet its goal for submarines and that continuing to produce a limited number of Seawolf class ships during that period would be less expensive than buying the NSSN.

This option would cancel the NSSN and purchase Seawolf submarines at a low rate. To help maintain the submarine industrial base and modernize the fleet, the option would produce a Seawolf every other year from 1999 to 2002 and one in 2003 and every year thereafter.

Canceling the NSSN and producing the Seawolf at low annual rates would save about $2.9 billion in budget authority in 1998 and $9 billion during the 1998-2002 period compared with the Administration's plan

as revised by the Congress. (In outlays, savings are $302 million in 1998 and $4.3 billion over five years.) Some of those savings would arise primarily from canceling the R&D program costing $1 billion. In addition, producing two more Seawolf ships in 1999 and 2001 would cost $8 billion less through 2002 than producing six NSSNs (one each year from 1998 to 2001 and two in 2002). Compared with the Administration's 1998 plan, which purchases four submarines through 2002, five-year savings in budget authority would be reduced to $4.5 billion during the 1998-2002 period.

The Navy's R&D program for the NSSN is expensive, particularly since it will produce a submarine that is in many ways less capable than the Seawolf. The Congress directed the Navy to redesign the ship using new technology to improve the design and further reduce the cost. The principal benefit of any lower-cost submarine--being able to buy more of them--may be nullified if unit costs for follow-on boats fail to decline as the Navy projects. The Navy projected that costs for the NSSN would decline by about 50 percent from the first ship to the fifth ship. Yet when the 688I (the improved version of the 688 submarine) began production, the costs dropped only 15 percent from the first to the fifth ship. Those two cases may not be entirely comparable, however, because costs for the detailed design of the first ship of a newly constructed class of ships may be higher than costs for the first ship of an improved class.

Continuing to produce the Seawolf submarine would allow the Navy to cancel the research and development program for the NSSN. The Navy could continue a low-level R&D program ($100 million a year) to develop new technologies as Seawolf ships were produced, thereby hedging against the need for a new-generation submarine if current projections of the threat should worsen.

During the Congressional debate on producing the third Seawolf, the Navy emphasized that Russia, although financially strapped and therefore unable to operate its nuclear submarine fleet up to its potential, is still investing money to buy new, very quiet attack submarines at low rates. As a result of Russia's investments, the JCS has set the requirement for 10 to 12 very quiet submarines by 2012. (The Seawolf, the NSSN, and presumably the next-generation submarine would all be quiet enough to meet the JCS standard.) Because the Seawolf's original mission was to fight such highly capable submarines, building additional Seawolf ships might be a hedge against any return by Russia as a hostile and strong military power. Procuring one Seawolf every other year from 1999 to 2002 and one every year from 2003 to 2007, plus the three already authorized, would enable the Navy to field a force of 10 very quiet ships by 2012, meeting the JCS requirement.

Although the Seawolf can perform missions in littoral areas, it might be less capable of carrying out those missions than submarines that are specifically designed for that purpose--the NSSN or the next-generation submarine. The NSSN has enhanced surveillance and special operations capabilities and may be able to get closer to shore in shallow water than the larger Seawolf. A larger ship, however, can carry greater numbers of special forces or Tomahawk missiles for attacking targets on land.

Continuing to produce Seawolf submarines at a low rate would also mitigate the effects on the submarine industrial base of canceling the NSSN. Although building Seawolf ships would do little to retain the capacity to design submarines, it would help maintain the industrial capacity to produce them. This alternative would probably provide enough work for only one of the two shipyards that can build nuclear submarines. If the alternative failed to provide the remaining yard with sufficient production work, that yard could take on some overhauls of existing submarines to help make up the difference. (Overhauls, which are usually done at public shipyards, use most of the skills required in building submarines.)

The low production rate might have a greater impact on subcontractors, but that effect could be mitigated in several ways: providing subcontractors with government subsidies, stockpiling critical components or shifting production of them to the shipyard, shifting other Navy work to the subcontractors, or using subcontractors to revitalize, modernize, or replace equipment on existing submarines. The industrial base for design (engineering and design teams) might be kept active by overhauling and modernizing existing submarines and developing additional technology to hedge against the need for a new-generation submarine. (The costs of those measures are not included in CBO's estimate of the savings for the option.)

DEF-06 REDUCE THE NUMBER OF AIRCRAFT CARRIERS AND AIR WINGS TO 10

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	350	934	1,620	1,358	7,060	11,322
Outlays	259	746	1,061	1,260	1,646	4,972

The aircraft carrier is the centerpiece of the U.S. Navy. The Administration's plan calls for a fleet of 12 carriers (11 active plus one carrier, manned partly by reserves, that can also be used for training) with 10 active air wings and one in the reserves to provide combat capability for those ships. The carriers will be accompanied by a mix of surface combat ships--usually cruisers and destroyers--and submarines that can attack planes, ships, and submarines that threaten the carrier. The surface combatants and submarines can also attack targets on land.

Some policymakers have argued that the United States does not need a force of 12 carriers in the aftermath of the Cold War. The total capability of all U.S. tactical aircraft in the Navy and Air Force will substantially exceed that of any regional power that seems potentially hostile. Cuts may therefore be acceptable.

Moreover, the capabilities of U.S. ships are unsurpassed worldwide. The Navy has ships other than carriers, including large flat-deck amphibious vessels, that can assist in maintaining a U.S. naval presence overseas in peacetime. Perhaps for these reasons, some policymakers have contemplated carrier force levels below those recommended by the Administration's plan. In 1990, before the breakup of the Soviet Union, the Chairman of the Senate Committee on Armed Services recommended a force of 10 to 12 carriers. And during the 1992 campaign, President Clinton called for a Navy with 10 carriers.

This option would retire two conventionally powered carriers early so that by 1999 the Navy would have 10 carriers (nine active carriers and one manned partly by reserves that could also be used for training). In addition, from the force of 10 active and one reserve air wings, it would eliminate one active air wing and leave nine active air wings and one reserve wing to match the number of carriers.

Compared with the 1997 plan, which has 12 carriers and 11 air wings, savings in budget authority could total about $350 million in 1998 and roughly $11.3 billion over five years. (In outlays, about $260 million would be saved in 1998 and $5 billion over five years.) About $4.9 billion of those savings are from reduced operating and support costs generated by retiring two carriers and eliminating one air wing. Another $6.4 billion would be saved by obviating the need to buy the CVN-77 nuclear carrier in 2002. Costs to decommission each retiring ship have not been deducted from the savings estimate.

The Navy might also realize procurement savings, which have not been included in the savings shown above. For example, the Navy might not need to buy as many DDG-51 destroyers for the smaller number of carrier battle groups (see DEF-07 for a discussion of the DDG-51). Also, the cut in air wings would reduce the number of required aircraft (see DEF-08 for a discussion of changes in procurement of naval aircraft).

According to former Secretary of Defense Les Aspin, reducing the force to 10 carriers would not impair the ability of the U.S. military to fight and win two regional wars that started nearly simultaneously. He argued, however, that having fewer ships would limit the Navy's ability to keep three carriers deployed overseas most of the time. In peacetime, some carriers spend time in repair; others are kept at U.S. ports to provide stateside duty time for their crews; still others are in transit to their operating stations. The Navy argues that only one-quarter or less of the carrier fleet can be deployed overseas in peacetime. Thus, reducing the fleet to only 10 carriers might mean that, much of the

time, one carrier fewer on average could be deployed overseas.

The Navy, however, may be able to maintain deployments with a smaller fleet. The factors the Navy used throughout the 1980s implied that about a third of the carrier fleet would be deployed overseas. Moreover, the Navy kept five of its 13 carriers overseas in the late 1970s. Based on that experience, the fraction of the carrier fleet that might operate routinely overseas is larger than the Navy's current formula would suggest, although according to the Navy such intensive use of carriers led to a number of problems. Alternatively, the same amount of overseas presence might be achieved with fewer carriers by basing another carrier overseas or shuttling crews and air wings between carriers. If the Navy shuttled crews to carriers deployed overseas, the same overseas presence could be achieved with about eight carriers and nine crews and air wings, saving $1.3 billion per year in procurement and operating and support costs.

Furthermore, a reduced overseas presence may be acceptable in the post-Cold War world. The United States would still have at least two carriers deployed overseas at any time, and possibly more if the Navy deployed a larger fraction of its carrier fleet. However, some missions, such as those requiring substantial numbers of fixed-wing aircraft, can be performed only by carriers. For example, carrier aircraft can be used to hit moving targets at longer ranges. In a crisis requiring such capability, a smaller force might mean an increase in the time before U.S. combat capability became available.

Alternatively, the Navy could use surface combatants other than the aircraft carriers to maintain a naval presence in peacetime and to assist in responding to crises. For example, it could use groups of ships centered around as many as 12 large flat-deck amphibious assault ships (smaller carriers) that are designed to transport the Marines and their equipment; those ships can embark helicopters and Harriers (Marine Corps attack aircraft that can land and take off vertically) and are as large as the aircraft carriers of many other countries. These Amphibious Ready Groups are fully capable of handling some missions performed by carriers, such as conducting limited strikes and evacuating noncombat personnel.

The Navy may also be able to meet some of its deployment requirements with groups of surface combatants that do not include any kind of carrier. Those formations have been made possible because the offensive capabilities of surface combatants have been augmented with the Tomahawk missile for attacking targets hundreds of miles inland and because their defensive capabilities have been enhanced by the Aegis system for defense against attacks from aircraft and antiship missiles. With the demise of the Soviet Union, a substantially reduced threat to U.S. ships also contributes to the feasibility of maintaining a presence with ships other than carriers. The Navy has already used formations without aircraft carriers to provide overseas presence. None of the formations, however, are as capable as a carrier battle group.

However, if policymakers continue to use aircraft carriers for overseas presence at current levels but the Navy has fewer vessels available, the time that ships spend at sea will have to increase. The high-quality sailors the Navy needs will therefore be spending more time away from their homes and families, thus making it harder for the Navy to retain them. According to a quantitative study by the Center for Naval Analyses, however, the problem of retention might not be severe and might be reversed by increasing compensation slightly.

DEF-07 REDUCE PROCUREMENT OF DDG-51 DESTROYERS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	551	660	777	879	1,149	4,016
Outlays	27	127	274	431	585	1,444

NOTE: Savings relative to the Administration's 1998 plan appear in Appendix A.

The DDG-51 destroyers of the Arleigh Burke class would be used in a war to protect aircraft carrier battle groups and to attack land- and sea-based targets. The ships incorporate the Aegis combat system for air defense and the Tomahawk missile fired from the Vertical Launching System for land attack. Compared with previous classes of destroyers, the DDG-51s incorporate other improvements in speed, weapons, and armor. The Navy states that the DDG-51s also will be more difficult for enemy forces to detect because of design features that reduce their radar, sonar, and infrared signatures.

The Administration's 1997 plan would have bought 14 more DDG-51s from 1998 through 2002--two per year in 1998 and three per year from 1999 to 2002. In the 1997 defense authorization act, the Congress provided multiyear contract authority for three ships per year from 1998 through 2001, thereby adding a ship in 1998. The Administration's 1998 plan adds a ship in 1998 in response to Congressional action, but reduces the number of ships purchased in 2002 from three to one.

In contrast, this option would buy only 10 DDG-51s from 1998 through 2002 at a rate of two a year. Compared with the Administration's 1997 plan as modified by the Congress, this option would buy five fewer ships during the 1998-2002 period and could save about $551 million in budget authority in 1998 and $4 billion over five years. (Savings in outlays would be $27 million in 1998 and $1.4 billion over five years.) Of the $4 billion in budget authority savings associated with this option, about $3 billion results from building five fewer ships and $1 billion from consolidating construction at one shipyard. Compared with the Administration's 1998 plan, which calls for building two fewer ships through 2002, this option would save $2.1 billion in budget authority and $1.4 billion in outlays. The smaller fleet of DDG-51s in the next decade would also result in savings in operating and support costs that are not included in this option.

Reducing the number of DDG-51s purchased each year could have some disadvantages. Buying fewer DDG-51s might reduce the capabilities of the fleet by providing fewer ships that can perform multiple missions (such as strike and antiair, antisurface, and antisubmarine warfare). With the Navy's post-Cold War policy of deploying its ships more flexibly, which could require that surface combatants sometimes be deployed without an aircraft carrier, such capabilities might be more important.

Moreover, proponents of the Administration's plan might contend that the advanced capabilities of the DDG-51s will continue to be needed in the post-Cold War world. The sophisticated combat systems that the DDG-51 incorporates include the Aegis system, which is designed to stop attacks by large numbers of enemy aircraft and their antiship missiles attempting to saturate the air defenses of the aircraft carrier battle group. The hostile air threat to the U.S. Navy has declined with the breakup of the Soviet Union, and the smaller air forces of regional powers that the United States is most likely to fight are less capable of launching saturation attacks. Combat against regional powers, however, is likely to bring ships into littoral areas where they have less time to react to threats and thus might benefit from the quicker reaction of the Aegis system. Nevertheless, some analysts believe that the DDG-51, which was designed during the Cold War, is not optimally designed

to fight in coastal areas and is too expensive to purchase in large numbers if the Navy's budget declines.

Only two shipyards currently build surface combatants, and reducing procurement to two vessels a year might sustain only one producer. The Congress would have to weigh carefully the possible effects of reducing the country's naval shipbuilding capabilities and the ability to reconstitute them if a change in threat required a buildup of forces. If reduced purchases caused one shipyard to close, the remaining shipyard might be able to charge higher prices that might offset some or all of the savings from lower production.

The Navy might be able to minimize such growth in unit costs. Even if only one shipyard remained, the government--a single buyer that has many alternative uses for its limited procurement budget--might be able to exert pressure on that yard to restrain costs. Indeed, one approach the Navy could take would be to let the two shipyards bid competitively for a single contract covering all ships purchased during the 1998-2001 period. In the longer term, closing a shipyard might reduce the Navy's costs by eliminating excess naval shipbuilding capacity.

Reducing the number of DDG-51s, as proposed in this option, need not limit the Navy's ability to counter regional threats. For example, the combination and automation of sensor inputs and weapons in non-Aegis ships may allow them to react faster to the shorter-range threats in regional conflicts. Advances in communications may allow a ship with the Aegis system to control the weapons of all other ships in a group, shortening the reaction time of the entire group. In addition, according to a press report, the Navy already has a shortage of Tomahawk missiles to be carried on existing ships, including the DDG- 51, that have the Vertical Launching System.

Considering the reduced threat, the Navy may already have enough sophisticated Aegis ships. With the 75 Aegis ships that would eventually be available under this option (27 CG-47 Ticonderoga class cruisers, 38 DDG-51s funded through 1997, and 10 future DDG-51s), two could be assigned as escorts to each of the 12 aircraft carrier battle groups, leaving 51 available for independent operations. In addition, the Navy would need fewer Aegis ships to escort carrier battle groups if the number of carriers was reduced (see DEF-06) or if lower threat levels warranted assigning only one Aegis ship per battle group. Because of the reduced threat, the Navy is already lowering the number of surface combatants assigned to escort and protect the aircraft carrier.

In the longer term, procuring fewer DDG-51s would exacerbate the Navy's difficulty in maintaining its force goal of 346 ships. In recent years, requirements for overseas presence have prompted the Navy to increase the goal from about 330 ships to 346. Yet the Administration's 1997 plan produces an average of about five ships per year during the 1997-2001 period. Assuming that the average life expectancy of a ship is 35 years, continuing that rate of procurement would stabilize the size of the fleet at less than 200 ships. Producing fewer DDG-51s per year would reduce the fleet even further unless the funds were used to procure a greater number of less expensive ships. With lower threat levels in the post-Cold War era, however, a smaller fleet of highly capable ships might be adequate. Most navies, especially those of potential adversaries, have smaller and less sophisticated ships than the DDG-51.

DEF-08 TERMINATE THE ARSENAL SHIP PROGRAM

Savings from the 1997 Plan	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	188	140	116	31	0	475
Outlays	91	138	126	76	28	459

NOTE: The 1997 plan includes no funds for follow-on ships.

The arsenal ship is a relatively new concept in ship design. It is being developed primarily to attack targets on land. Each of six planned ships would contain about 500 vertical launch system (VLS) cells. Those cells are tubes used to fire missiles and are currently deployed in smaller numbers on Navy cruisers, destroyers, and submarines. Because ordnance aboard the arsenal ship would be fired remotely by other ships, aircraft, or ground units using targeting data that they developed, the arsenal ship would not require expensive sensors and combat systems.

The Administration's 1997 plan continues accelerated development and fielding of the first ship (a demonstrator) by the Navy and the Defense Advanced Research Projects Agency (DARPA) under an advanced technology demonstration program. According to a Navy official familiar with the program, if development proceeds satisfactorily, a decision to procure a second ship will be made in 2000 or 2002.

This option would cancel research and development of the arsenal ship, saving $91 million in outlays in 1998 and almost $500 million during the 1998-2002 period. Those savings do not factor in the costs to procure follow-on production ships; the 1997 plan funds only the first vessel. Total savings from not completing the program are estimated to exceed $3 billion. (Those savings assume that the Navy buys a second ship in 2002 and four other ships from 2003 to 2006.) In addition, savings of about $2 billion would result from not buying expensive missiles to fill the 3,000 additional vertical launch cells. (Those savings assume that the Navy procures 3,000 additional Tomahawks, which are used to strike fixed targets on shore at long ranges.)

Proponents of the arsenal ship believe it would be an inexpensive way to give the fleet additional firepower that could be deployed quickly during a crisis or war. Existing technology would be used for the ship; omitting costly sensors and combat systems would allow personnel costs to be kept low by limiting the size of the crew to no more than 50. The ships would be kept overseas in key areas so that they could respond more quickly to crises. Their high-capacity magazines might be used to hit targets early in a war when enemy air defenses would make it too risky to use manned aircraft. Also, the longer-range missiles fired from the ships might be used to support Marines carrying out their new doctrine of maneuvering deep into enemy territory.

Nonetheless, the arsenal ship may not be needed. Opponents of the program maintain that the fleet does not need more VLS cells, especially ones so vulnerable to enemy attack. Even without arsenal ships, by the end of the decade the fleet will have over 7,000 VLS cells on its cruisers, destroyers, and submarines. Unlike the arsenal ship, those ships can perform multiple missions. Critics argue that the VLS cells on the other ships (the maximum number of cells per ship is about 120) are not as vulnerable as those on the arsenal ship. The arsenal ship, they claim, puts too many weapons on a single platform, making it a lucrative and potentially explosive target for enemy aircraft, submarines, and patrol boats. In addition, because the Navy has traditionally assigned a higher priority to buying ships and aircraft than it has missiles, it has a shortage of Tomahawk missiles even for the existing VLS cells. Furthermore, according to one critic, building a ship whose sensors and combat systems are remotely located makes the questionable assumption that data links between

ships cannot be interrupted or jammed. Those data links could be the weakest part of the concept of the arsenal ship.

Opponents also maintain that the Navy is building the wrong kind of ship. Although the Department of the Navy's post-Cold War doctrine "Forward from the Sea" emphasizes the role of the Marine Corps, the arsenal ship may not be ideal for supporting those forces before they go ashore (by bombarding the shore before an amphibious assault) and while they are there. Critics argue that with about 500 VLS cells, the ship would be primarily a strike weapon poised to hit distant, high-value targets in the enemy's rear area with very accurate and expensive missiles. Therefore, the arsenal ship would compete with the plethora of other assets, such as the B-2 bomber, capable of performing the strike mission.

Thus, opponents assert that scarce resources should not be used to buy more VLS cells. Instead, to suppress enemy forces before and during an amphibious assault, the Marines need the support of ships that can provide responsive, sustained, high-volume fire from guns shooting relatively inexpensive shells. According to that argument, such fire support during the Persian Gulf War was provided by the now-retired battleships with 16-inch guns, despite the availability of missiles in VLS cells on ships afloat. Furthermore, unlike guns, missiles cannot be reloaded into VLS cells while the ship is at sea. (The space and weight limitations of the arsenal ship would permit a gun system to be added in the future, but the demonstrator ship will not have one.)

Although the Navy intends to build the arsenal ship inexpensively, it is exploring ways to reduce the ship's vulnerability to attack in littoral areas through stealth techniques that inhibit detection. According to one critic, however, spending a lot on stealth technology may be unwarranted because the vessel would probably be protected by the sophisticated defenses of an accompanying battle group.

DEF-09 CANCEL THE UPGRADE OF THE NAVY'S F/A-18 FIGHTER AND BUY THE CURRENT MODEL

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	1,812	2,116	2,233	1,654	2,410	10,225
Outlays	252	932	1,630	1,886	1,943	6,643

NOTE: The Administration, in its 1998 budget request, has revised its plan for this system. Appendix A shows savings against the 1998 plan.

For the foreseeable future, the F/A-18 aircraft will account for the bulk of the Navy's fleet of carrier-based aircraft that perform fighter and attack missions. The F/A-18 attacks targets both in the air (the fighter mission) and at sea or on the ground (the attack mission). The current version of the F/A-18 is designated the C/D model.

In 1991, the Navy announced plans to develop a new E/F variant of the F/A-18. The E/F version features several modifications: a longer fuselage, a larger wing, and a more powerful engine than are now on the C/D version. Those changes should enable the E/F to carry a larger load of weapons than the C/D, or to carry a combat load about 40 percent farther. Both attributes are important factors in determining the plane's capability in the attack role. The new engine should also enable the heavier E/F aircraft to retain the speed and maneuverability of the earlier version, important performance considerations in fighter combat. McDonnell Douglas Corporation, the plane's manufacturer, also points to the lowered signatures of the E/F, billing the plane as the Navy's first fighter aircraft with low observable characteristics. Such characteristics increase the likelihood that planes will survive to perform their missions.

Though more capable, the E/F version will also be more expensive than the C/D model--about 39 percent more by some estimates--and the Navy will have to pay about $0.4 billion from 1998 through 2002 to complete development of the plane. This option would cancel development and procurement of the new E/F model and instead would buy sufficient additional C/D aircraft to maintain the Administration's planned production rates. Compared with the 1997 plan, savings in budget authority would total about $1.8 billion in 1998 and $10.2 billion over five years. Savings from the 1998 plan would be about the same. Savings from canceling the upgrade might be larger if the F/A-18 experienced unanticipated cost increases.

The requirement for an upgraded F/A-18 aircraft may be questionable in view of today's reduced military threat. The threat to carrier battle groups stemmed largely from the former Soviet Union, and the possibility of conflict with the former Soviet republics now seems increasingly remote. Regional powers are not likely to be able to match the capability of current U.S. fighters for many years. But if the enhanced fighter capabilities offered by the E/F version are not needed, neither may be its added attack capabilities, based on the Navy's judgments about other systems. The Navy is retiring its venerable but longer-range A-6 fleet and has canceled development of a new longer-range replacement, the A/FX, at least in part because the service now places less emphasis on the deep strike mission and more on supporting Marine forces that operate at relatively short ranges from the ships that transport and support them. Such reservations about whether F/A-18 E/F enhancements are needed may have led the Marine Corps, which also flies the F/A-18, to question whether it would pursue E/F purchases or keep buying the current model.

Even if the added capabilities of the E/F model are needed, trends in the F/A-18 program suggest that they may be hard to achieve. Some critics of the program have noted that the A/B model of the F/A-18 attained only about 75 percent of the originally specified goal for the fighter's range, and the C/D model achieved only about 70 percent.

Canceling the E/F development program would have some disadvantages. Even in conflicts with smaller nations, improvements in the F/A-18's range might be useful in the attack mission; indeed, critics of the C/D version believe its relatively short range limits its usefulness. Moreover, now that the A/FX has been canceled, the E/F upgrade will be the only major upgrade the Navy will purchase for its fighter fleet at least through the middle of the next decade.

DEF-10 CANCEL THE MARINE CORPS'S V-22 AIRCRAFT PROGRAM AND BUY CH-53E HELICOPTERS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	687	813	800	1,258	1,874	5,433
Outlays	200	440	581	696	960	2,877

NOTE: The Administration, in its 1998 budget request, has revised its plan for this system. Appendix A shows savings against the 1998 plan.

The V-22, a new plane entering production in 1997, is intended to help the Marine Corps perform its amphibious assault mission of seizing a beachhead in hostile territory and its subsequent operations ashore. V-22s will transport up to 24 marines or 10,000 pounds of their equipment, moving either from amphibious ships to the shore or from one shore base to another. The plane employs a tilt-rotor technology that enables it to take off and land vertically like a helicopter and, by tilting its rotor assemblies into a horizontal position, become a propeller-driven airplane when in forward flight. The V-22 will be able to fly faster than conventional helicopters; it will also fly longer distances without refueling than other Marine Corps helicopters and thus can "self-deploy" rather than be carried to distant theaters on planes or ships, the common mode of transport for conventional helicopters. The Marine Corps argues that analysis indicates that the V-22's increased speed and other characteristics of its design will make it less vulnerable when flying over enemy terrain.

Despite all of these advantages, the Bush Administration tried to cancel the plane, largely because of its expense. At a projected unit cost of more than $54 million (in 1997 dollars), the V-22 costs considerably more than most conventional helicopters. The V-22's flyaway cost, a price that excludes some items bought with procurement funds, averages about $42 million (also in 1997 dollars).

Notwithstanding the V-22's high cost, the Congress has continued to fund it, providing more funding than the Clinton Administration requested in 1997. The Congress allocated funds to procure five planes, one more than the Department of Defense requested. The Marine Corps plans to buy a total of 425 V-22s. Another 50 planes might eventually be bought for special operations forces, and the Navy plans to buy 48 for combat search-and-rescue missions and for logistics support of its fleet.

At present, the Marines use helicopters to transport personnel and equipment in amphibious missions. One helicopter--the CH-53E, which carries heavier loads than the V-22 and costs about half as much to procure--will continue to transport Marine equipment even after the V-22 is fielded. The Marines will continue to need some CH-53Es to meet requirements for lifting heavier equipment, but the Administration bought the last of those helicopters in 1994.

This option would cancel the V-22 and continue procurement of CH-53Es. It would buy six CH-53Es per year from 1998 through 2002, half the number bought in 1994. It would also cancel development and procurement of the V-22 special operations variant and purchase no replacement. Presumably, the Department of Defense might develop and procure a special forces aircraft at some later date. Relative to the Administration's 1997 plan, the option would save nearly $0.7 billion in budget authority in 1998 and $5.4 billion over five years. Savings from the 1998 plan would be about the same. In addition to saving money, buying CH-53Es might entail less risk than developing a V-22. Two of five V-22 prototypes have crashed, as has one of two XV-15 aircraft built to demonstrate tilt-rotor technology. The Marine Corps argues that the problems that caused those crashes have been remedied without substantial design changes. But the crashes

may suggest problems with the design. If problems exist, developers may need to increase the already high costs of the plane or reduce its capability.

The Marines Corps argues that the CH-53E does not meet its requirements for the amphibious assault mission for a number of reasons. First, the slower CH-53E is less likely than the V-22 to survive in hostile environments. Even if the V-22 is purchased, CH-53Es will be needed to transport heavy items of equipment that the V-22 cannot carry. Since many of those items will be needed early in battle, CH-53s will therefore need to be part of the first assault wave. But Marine Corps doctrine dictates that the first assault wave be delivered by a more survivable aircraft than the CH-53E. Furthermore, Marine Corps personnel suggest that CH-53Es might not be able to build up sufficient forces fast enough to stop enemy troops who might arrive soon after operations begin. Smaller U.S. forces would increase the likelihood of a U.S. defeat or potentially increase the number of casualties. The problem of building up forces quickly might be at least partially overcome if each CH-53E carried more troops, but the Marine Corps argues that CH-53Es are too unwieldy and vulnerable to carry large troop loads.

Marine Corps personnel also argue that the CH-53E, or indeed any other current helicopter, is unacceptable because it cannot deploy overseas without substantial assistance and risk. Many current helicopters can make the relatively long trips over water required to deploy in the Pacific, but they must refuel in flight, requiring the assistance of tanker aircraft, and their slower speed increases the chance that pilot fatigue will result in missing a tanker rendezvous or cause other mishaps. A final argument in favor of buying the V-22 is that it provides capabilities that may be particularly useful in peacekeeping contingencies, such as the Bosnian operation, and hence worth developing if the United States is more likely to engage in such operations. For example, since V-22s fly faster than conventional helicopters, they might be better at landing personnel and equipment in remote sites and rescuing pilots from downed aircraft.

DEF-11 REDUCE AIR FORCE TACTICAL FORCES

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	261	535	548	563	579	2,486
Outlays	191	425	484	518	543	2,162

The military forces proposed by the Administration include 20 tactical air wings--13 active and seven in the part-time reserves--six fewer than the Bush Administration planned to have. (Traditionally, an Air Force tactical air wing has consisted of 72 combat aircraft, plus about 28 aircraft for training and maintenance, though the service may be revising that concept.) Substantial disagreement exists about whether all of those forces are needed, since U.S. tactical aircraft enjoy overwhelming superiority compared with the forces of regional powers that appear potentially hostile to the United States. Perhaps for that reason, former Secretary of Defense Les Aspin, when he was the Chairman of the House Committee on Armed Services, recommended in 1992 that the Air Force retain only 18 tactical wings--10 active and eight reserve.

This alternative would follow that recommendation and further reduce the tactical fighter forces in the Air Force to 18 wings by the end of 1998. So rapid a schedule for reductions should be feasible inasmuch as the Air Force has reduced the size of its fleet quickly in the past; for example, it eliminated six wings during 1991 and 1992. Moreover, the six additional wings the Clinton Administration planned to eliminate were cut by the end of fiscal year 1996. Reducing the number of Air Force wings from 20 to 18 would lower the service's operating outlays by $191 million in 1998 and by $2.2 billion through 2002. Additional savings might accrue from buying fewer aircraft, but those savings are not included in the table above. (See DEF-12 for a discussion of changes in procurement of Air Force tactical aircraft.) CBO assumes that savings from the Administration's 1998 plan will be the same.

Still further savings might be possible if the Air Force accompanied the force reduction with a reorganization that increased the number of planes per squadron and eliminated more squadrons. That practice, known as "robusting," allocates resources more efficiently since each squadron or wing has high fixed costs. Increasing all Air Force squadrons to 24 planes could add significantly to the savings shown above.

In addition to achieving savings, a reduction to 18 Air Force wings could still leave the United States with an acceptable level of military capability in the post-Cold War world. Even in terms of simple counts, U.S. fighter inventories exceed those of any potential regional aggressor. Also, U.S. aircraft are typically more sophisticated than those of potential enemies.

Retaining only 18 wings in the Air Force, however, would not meet the military's current estimate of its requirements. Analysis by the Department of Defense suggests that 20 wings would be the minimum needed to win two nearly simultaneous regional conflicts. Today's U.S. force planning assumes that the United States needs to be able to fight virtually simultaneous wars in two regions of the world--one in the Middle East and another perhaps in Asia. If one accepts that requirement, then the Air Force may well need more than 18 wings.

Some analysts would also argue that additional cuts in Air Force wings ignore a major lesson from the war with Iraq: aerial bombardment by tactical aircraft can be quite effective and may greatly accelerate the end of a war, thus reducing the loss of lives among U.S. ground troops. A sizable inventory of tactical aircraft, perhaps more than would be maintained under this option, may therefore be a wise investment.

DEF-12 CANCEL THE AIR FORCE'S F-22 AIRCRAFT PROGRAM

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	1,130	3,014	3,910	5,152	6,083	19,290
Outlays	479	1,202	1,771	2,521	3,482	9,454

NOTE: The Administration has delayed procurement of F-22s in its 1998 plan. Appendix A shows savings against the 1998 plan.

The F-22 aircraft is being developed as the Air Force's next premier fighter and is scheduled to begin replacing the F-15 aircraft around 2000. Fighter aircraft are designed primarily to destroy enemy planes, thus guaranteeing the United States and its allies control of the air. The Air Force wants the F-22 aircraft to have supersonic cruise speed as well as stealth characteristics that make it difficult for enemy sensors to detect. The F-22 would also be designed to fly long distances and to have highly effective avionics that could make it more capable than other fighters in many types of combat.

The F-22 entered full-scale development in 1991, and according to the Administration's 1996 plan, the first F-22s were to be bought in 1998. Last year the Administration deferred purchases of the first planes to be bought with funds from the procurement account until 1999. (It still planned to buy four aircraft in 1998, but expected to fund them with development moneys and probably would have used them for testing.)

The Air Force recently announced that the program would slip again this year. The service now plans to extend the engineering and manufacturing development for the F-22 and reduce the number of aircraft purchased through 2003. It canceled the four test planes, so the first fighters would not be bought until 1999 under the new schedule. The decision stems from a recent Air Force program review that found that the F-22 engineering and manufacturing development program required additional funding and time to have a stable design before entering production. In addition, the study cited the potential for procurement costs for the F-22 to increase as much as 28 percent. The Air Force and the F-22 contractor hope to contain any growth in procurement costs by incorporating initiatives that would streamline production. The program would also include reforms of the contracting process similar to those applied to the C-17 program.

This option would cancel the F-22 program on the grounds that its additional capability may be both unnecessary and too expensive. Compared with the 1997 plan, canceling the F-22 would save \$1.1 billion in budget authority in 1998 and about \$19.3 billion for the 1998-2002 period. Savings from the 1998 plan over the next five years would be about \$5 billion less. (The total estimated savings include procurement, research and development, and military construction.)

The high cost of the F-22 is one argument for canceling it. The Air Force planned to buy 648 aircraft in January 1993 at a total cost of about \$74 billion in 1997 dollars (\$86.6 billion in current dollars). The average unit procurement cost of the F-22 would have been about \$83 million in 1997 dollars. Now the Air Force seems likely to buy no more than 438. Total program costs declined by only 15 percent (in 1997 dollars) even though the total quantity fell by nearly a third. The reduction in quantity, and other factors, pushed up the unit procurement cost of the F-22 to about \$91 million (in 1997 dollars), about 10 percent more than the estimate provided in January 1993 and roughly 65 percent more than the average cost of the F-15E.

Since the costs of many weapon systems increase during the full-scale development phase that the F-22 entered in 1991, actual costs could rise even more. For example, the F-22's cost could increase if the Air Force has to fix design flaws. The Air Force argues that the

April 1992 crash of the only flying prototype of the F-22 was caused by the way the aircraft was operated and that certain operating restrictions or, at most, minor software changes should prevent future problems. But such mishaps may portend costly production problems. Some recent press reports also suggest that the F-22 may be experiencing other development problems, such as increases in weight, that can raise its costs. The program may also have to engage in a costly redesign of some avionics that have become obsolete over the lengthy development process. And unit costs will rise if F-22 procurement is reduced even further below planned levels, as seems likely.

Events in the Persian Gulf War suggest that current Air Force aircraft are able to counter any threat less severe than that formerly posed by the Soviet Union, which many analysts consider to have been the only hostile country whose air force had the capability to threaten U.S. fighters. In view of that reduced threat, the F-22 may provide more capability to attack enemy fighters than the United States needs.

Moreover, other types of aircraft may prove to be more useful in future conflicts. The extensive use of tactical bombing in the Persian Gulf War emphasizes the value of aircraft that can attack land targets, perhaps in preference to aircraft such as the F-22, which is designed to combat enemy fighters. Given the changes in the nature of the threat, strategies other than buying expensive F-22 aircraft might better meet the Air Force's future needs. Such strategies might include upgrading existing aircraft or developing a new plane that is less capable but cheaper than the F-22.

Nor does the Air Force need to buy the F-22 any time soon to support the reduced size of its tactical forces. CBO's analysis suggests that even if the Air Force procured no fighter aircraft after 1993, it would have more than enough through at least the middle of the next decade, though it would experience shortages in its overall tactical fighter fleet around the turn of the century.

The Air Force contends that the improved capabilities of the F-22 aircraft are required even in a world in which U.S. tactical air forces are smaller and the threat is much reduced from that posed by the former Soviet Union. If the United States canceled the F-22 program, the capability of its fighters through the first decade of the next century would be similar to that of today's F-15 aircraft, which entered development in the 1960s. By the next decade, some regional powers may possess fighter aircraft that are at least the equal of the F-15. Thus, the Air Force believes that the United States, to maintain its edge, needs the improved capability the F-22 aircraft offers. The Air Force also raises concerns about increased threats from the ground that may degrade the survivability of current aircraft. Modernizing surface-to-air missile systems, which may be more accessible to regional powers, may also be cheaper and easier than modernizing fighter fleets. To counter those threats, fighters may need the improved capabilities of the F-22, including stealth and higher speed.

The Department of Defense plans to provide the F-22 with capabilities to perform the ground attack mission--a plan that may be the Administration's response to criticisms that the F-22 is less useful in regional conflicts if it is a pure fighter aircraft. The F-22's capability to attack targets on the ground may be modest, however, according to some press reports. And its ability as a bomber will undoubtedly be less than that of a plane developed primarily for the bombing mission.

DEF-13 BUY NO MORE THAN 72 C-17S AND PREPOSITION EQUIPMENT INSTEAD

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	80	290	1,210	3,540	3,560	8,680
Outlays	10	10	120	690	1,640	2,470

The C-17 Globemaster III is a four-engine transport aircraft that can carry a cargo payload of at least 110,000 pounds for a distance of 3,200 nautical miles without aerial refueling. It is being produced as the next-generation airlift aircraft to replace the C-141 Starlifter. Because it is designed to land at relatively small airfields with short runways, the C-17 might also play a role in meeting transport needs within a combat theater and could substitute for other aircraft, such as the C-130, that traditionally perform that role.

The Congress has already authorized 48 C-17 aircraft through 1997, and the Administration plans to purchase a total of 120. By buying a maximum of 15 C-17s per year, the Administration would complete procurement in 2003. CBO estimates that under the terms of a multiyear arrangement, acquiring the aircraft would cost $18.7 billion between 1998 and 2002. Operating and supporting all C-17s in the Administration's plan would cost an additional $3.5 billion over the same period.

The Department of Defense has two alternatives to airlift for transporting military equipment over intercontinental distances--sending cargo from the United States on sealift ships or placing sets of equipment closer to regions where conflict might occur (called "prepositioning"). Although the Administration is investing in all three modes of transportation, DoD has recently focused on prepositioning equipment in two places where military planners believe conflict is most likely: the Persian Gulf region and the Korean Peninsula. That approach would allow DoD to deliver heavy forces (units that include tanks and armored fighting vehicles) much more quickly to major regional conflicts; sealift ships would take about three or four weeks to steam from the United States and unload their cargo, and airlift planes can carry only one or a few heavy vehicles at a time. By prepositioning heavy equipment on large roll-on/roll-off ships anchored in the Indian or Pacific Ocean, military planners can retain some flexibility in where they choose to send U.S. forces yet deliver the larger volume of cargo typically provided by sealift.

This option would limit purchases of C-17s to a total of 72 aircraft, or eight per year in 1998, 1999, and 2000. In the place of airlift planes, DoD would purchase one additional large, medium-speed, roll-on/roll-off ship (LMSR) that would carry prepositioned equipment. Since DoD would procure fewer C-17s each year than under the Administration's plan, CBO assumed that the average cost of each plane would be higher. CBO also assumed that DoD would incur some costs associated with closing down the C-17 production line, and it would purchase new equipment to preposition rather than rely on current stocks. Yet even after those costs, CBO estimates that the option would save $10 million in outlays in 1998 and $2.5 billion through 2002 relative to the Administration's plan to purchase 120 C-17s. Savings in budget authority would be considerably larger--almost $8.7 billion over the next five years.

Compared with the Administration's plan, this alternative would allow DoD to deliver roughly the same amount of equipment and supplies even in the most challenging scenario. But how could one ship substitute for 48 C-17s? Each newly constructed LMSR can preposition at least 250,000 square feet of cargo, compared with approximately 1,200 square feet to 1,500 square feet on each C-17. Based solely on floor space, it would take a total inventory of 38 to 52 C-17s to deliver the same amount of cargo to the Persian Gulf in the same 11- to 12-day period as one LMSR that had been prepositioned in the Indian Ocean. But using

floor space as a measure understates the comparison because airlift loads are constrained more by the weight and three-dimensional shape of their cargo than by floor space. Thus, one LMSR, which is less constrained by the weight and volume of cargo, may very well be able to perform the same early deliveries as 48 C-17s. (See Congressional Budget Office, *Moving U.S. Forces: Options for Strategic Mobility*, February 1997, for more details.)

Defense leaders might prefer to keep prepositioning to a minimum for two reasons. First, the units that military planners intend to deploy would have to be selected long before any sign of conflict. Yet if circumstances changed, a different mix of units might better address the situation. For that reason, the option might not provide regional commanders with as much flexibility as would the Administration's plan.

Second, prepositioning can complicate a deployment by breaking up the integrity of military units. Some equipment is not appropriate for prepositioning: it may be in short supply, contain sensitive electronic components, or be difficult to maintain aboard ships. For example, helicopters can be shrink-wrapped before they are transported on ships to lessen their exposure to salt water, but such a measure would not be suitable for long-term storage since it would prevent the ship's crew from running the helicopters' engines or performing routine maintenance on them. As a result, military planners divide units into equipment that is considered suitable for prepositioning and its "fly-in echelon"—the troops and more sensitive cargo that would be airlifted to meet up with stocks already in place.

The complexity added by dividing up units, however, is not insurmountable. As the military services have begun prepositioning more equipment in recent years, they have also conducted training exercises in which troops learn how to "marry up" with their gear. Increasing the amount of training could offset much of the complexity added by another prepositioning ship.

Finally, opponents of this option would argue that at a time when the U.S. military is preparing to face diverse regional conflicts on short notice, the Air Force needs more of the versatile C-17 airlifters. A 1995 study by the Secretary of Defense's Director for Program Analysis and Evaluation found that if the United States became involved in crises requiring special military missions, U.S. forces might need more than 72 C-17s. For example, the Army has a military requirement to be able to perform airdrop operations with large, brigade-size forces over long distances--a mission that DoD believes would require at least 100 C-17s. Having more C-17s could also be important if military commanders chose to devote one or two squadrons of C-17s to moving larger pieces of equipment within a combat theater at the same time as a deployment from the United States was under way.

But DoD has rarely dropped brigade-size forces in actual missions. The United States conducted airdrops into Grenada in 1983, Panama in 1989, and came close to performing a large-scale drop into Haiti in 1994, but the Air Force could have used shorter-range C-130s in all those situations. Since a brigade airdrop over longer distances would be more physically demanding on the troops and more difficult to execute, some analysts have suggested that the United States is unlikely to use such a capability. And although DoD officials have justified buying 120 C-17s partly on the requirement to conduct brigade-size airdrops over strategic distances, that plane has experienced persistent difficulties in airdrop tests.

Supporters of the option would contend that DoD could continue to use trucks and rail cars to move the largest pieces of cargo within a combat theater. Moreover, based on DoD's own analysis, the option would include enough C-17s to deliver cargo to many types of smaller contingencies such as humanitarian assistance operations, evacuating noncombatants from foreign countries, peacekeeping missions, or even delivering heavier cargo to a peace enforcement mission such as current operations in Bosnia.

DEF-14 DEFER MODERNIZATION OF TACTICAL AIRLIFT

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	117	114	119	114	117	581
Outlays	7	35	73	98	107	320

NOTE: Savings relative to the Administration's 1998 plan appear in Appendix A.

The C-130 Hercules is an airlift plane that the Air Force uses to transport cargo and supplies within a theater of operations. The C-130 is much smaller than strategic airlifters like the C-17 or C-5, which can carry an average of at least three times more weight over much longer distances. Nor is it big enough to carry the largest pieces of equipment such as Apache helicopters or Patriot missile batteries.

Nevertheless, the C-130 remains a critical element of the Air Force's tactical airlift fleet. Lockheed Martin has produced more than 2,100 of those aircraft over the past 40 years, and the C-130's airframe has proved highly effective and versatile. Its turboprop engines do not ingest loose dirt and materials from unpaved runways, thus giving the C-130 better access to austere airfields than the turbofan engines used in most strategic airlifters. The turboprop engine also permits more rapid changes in thrust than most turbofans, which contributes to the C-130's ability to take off and land on short runways and descend quickly into airfields that are hard to reach. And since the average unit procurement cost of the J version is about $55 million, the Air Force could purchase at least three C-130Js for the price of one C-17, which some defense analysts would like to use for tactical airlift operations.

To produce the J version, which the Air Force is now buying, Lockheed Martin has taken the basic airframe of the C-130 and upgraded a number of the plane's systems. For example, the C-130J includes an integrated avionics system that eliminates the need for a flight engineer and incorporates a new engine that is more powerful and fuel-efficient. The plane can be modified for in-flight refueling, although the Air Force did not request that capability in the basic C-130Js that it is purchasing.

The Air Force maintains a primary mission aircraft inventory of more than 450 C-130s for tactical airlift. For 1997, the Congress continued a pattern of authorizing a larger purchase of C-130s than the Administration requested--five C-130Js were authorized instead of the one aircraft requested. In its 1997 plan, the Administration proposed buying two C-130Js per year throughout the 1998-2002 period to begin replacing the Air Force's E version aircraft in the active-duty forces. Although the C-130Es are the oldest of those aircraft, until recently the Air Force had no plans to begin retiring them until the middle of the next decade. In its budget request for 1998, however, the Administration reduced the number of C-130Js that it proposes to buy to just three planes rather than 10 over the 1998-2002 period.

Identifying a clear numerical requirement for the C-130J, however, is difficult. The Air Force sent only 149 of its large inventory of C-130 aircraft to the conflict in the Persian Gulf. Since they move equipment and supplies from main operating bases closer to the battlefront, a substantial number of C-130s may be needed during two major regional contingencies that occurred at nearly the same time. But predicting the type and number of intratheater airlift movements that would be needed is difficult, and other modes of transportation such as trucks, trains, and watercraft can substitute for some airlift deliveries.

This option would postpone procurement of C-130Js until well into the next decade. Relative to the

Administration's 1997 plan, deferring modernization of the C-130 would save about $115 million in budget authority per year, resulting in a total of $320 million in outlay savings over the 1998-2002 period. Since the Administration has cut back purchases of C-130Js in its 1998 plan, savings from this option would be far smaller--$222 million in budget authority and $58 million in outlays over the five-year period.

As with all cuts in weapons programs, this option would eventually have negative repercussions on the defense industrial base. Following in a long tradition of export sales to more than 60 countries, Lockheed Martin is currently building a stretch model of the C-130J for Britain and Australia and may sell others to replace the C-130s it sold abroad years ago. The manufacturer used its own financial resources to develop the upgrade program, which it hopes to recoup with the first 120 planes it sells. If the U.S. Air Force purchased the J version today, that might also help to secure export sales in the world market.

Critics of this option might also argue that it would leave the Air Force with a less capable fleet of intratheater airlift planes. In recent years, the Congress appropriated funds to purchase new C-130s for the Air National Guard and Air Force Reserve, but many of the older E version remain in the Air Force's inventory. Ultimately, an older fleet might prove more expensive to operate and support. Lockheed Martin contends that since the J version uses a smaller crew and will be easier to maintain, the annual cost of operating and supporting a squadron of C-130Js will be significantly lower than that of the C-130s already in the Air Force's inventory.

But although the average E-model plane is about 30 years old, the fleet has flown an average of about 21,000 hours--well below the aircraft's planned 40,000-hour service life. Since the Air Force flies its C-130Es an average of 600 hours per year for active-duty forces and 375 hours to 450 hours per year for those flown by Guard and Reserve crews, it might be able to retain most of those planes until the latter part of the next decade.

An Air Force analysis has suggested that the costs of the ambitious upgrade might be higher than expected or that the program's schedule might be delayed. Furthermore, no one knows whether operation and support costs for the J version will be as low as the producer has advertised. Since Lockheed Martin has been developing the C-130s for its export customers, the Air Force might avoid technical and cost uncertainties associated with the program by waiting to modernize its forces until the development phase is complete.

DEF-15 RETIRE EXCESS KC-135 TANKERS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	42	131	225	325	433	1,156
Outlays	34	111	201	298	403	1,046

The Air Force owns a large fleet of tanker aircraft to refuel transports, fighters, and bombers while they are airborne. Being able to do so is important for tactical air operations and for deploying forces by air from the United States to other parts of the world. U.S. tanker forces consist of 472 KC-135 aircraft and 54 KC-10 aircraft (both figures reflect primary mission aircraft inventory--those planes available for operational use).

During the past several years, most of the aircraft in the KC-135 fleet have been retrofitted with new CFM-56 engines that increase their fuel-carrying capacity. About two-thirds of the KC-135s have been modernized with this engine. The remainder (designated as KC-135E aircraft) have been retrofitted with less efficient engines for the Air Force Reserve and Air National Guard.

This option would retire 100 E-version aircraft--those with the least efficient engine technology and the smallest capacity for fuel delivery--at a rate of 20 planes per year through 2002. That would still leave the military with more than 420 operational tanker aircraft (including KC-10s). Compared with the Administration's 1997 plan, this approach could save $34 million in outlays in 1998 and over $1.0 billion through 2002.

Historically, the tanker fleet has played an important role in the nuclear deterrence mission by supporting long-range strategic bombers. Today, however, most of the requirements for aerial refueling are derived from regional threats. The tanker fleet provides an "air bridge" for deploying conventional forces, thus reducing the amount of time it takes to place U.S. forces in distant theaters and decreasing the degree to which the United States must rely on foreign bases en route. Tankers can be used to refuel airlift aircraft, as was done to support the C-5 aircraft that carried heavy equipment to Somalia. To a limited extent, KC-135s can also transport cargo during peacetime; in the event of a major regional contingency, 26 would be used in a transport role. Once in theater, tanker aircraft support fighters and bombers, increasing their combat range and endurance. For example, about 300 tanker aircraft supported operations in the Persian Gulf War.

This option could provide enough tanker capacity to meet the requirements of future regional contingencies. The combination of planned KC-135 retirements and the changes proposed in this option would amount to about a 15 percent reduction in the Air Force's total capacity for fuel delivery by 2001 compared with its current level. Relative to 1990 levels, those reductions in numbers of tankers are commensurate with the Administration's plans to reduce the number of attack and fighter aircraft by about 40 percent.

Retiring the older KC-135E aircraft would also avoid other problems. The KC-135E has a refurbished engine used formerly by Boeing 707 aircraft in commercial service. Although that engine has greater fuel efficiency than the KC-135's original engine, it gives the aircraft less capacity for fuel delivery and slightly higher operating and support costs than aircraft equipped with the more modern CFM-56 engine. In addition, the older engine does not comply with Federal Aviation Administration Stage III noise standards set for 2000. Since tankers often operate from airfields used for both military and commercial aircraft, the Air Force would probably have to purchase "hush kits" or put new engines in its E-version planes in the near future.

Retiring KC-135E tankers, however, might leave fewer KC-10 aircraft available for airlift tasks. In addi-

tion to being an aerial refueling aircraft, the KC-10 can be used as an airlifter; it is especially efficient in delivering bulk cargo. The Air Force plans to dedicate just 15 of its 54 KC-10s to air refueling missions, leaving the remainder free primarily for cargo delivery. Thus, by retiring more of the Air Force's aircraft dedicated to refueling, this option may reduce the number of KC-10s that can be devoted to airlift missions.

Moreover, the Air Force may need to rely more heavily on aerial refueling if the United States loses access to foreign bases that support airlift missions en route. During the Gulf War, three bases (Zaragoza, Torrejon, and Rhein-Main) handled 61 percent of the airlift traffic. Of those bases, one is no longer available, and it is uncertain whether the United States will have the same degree of access to the others in the future. Opponents of this option might argue that a large tanker fleet makes the United States less dependent on obtaining overflight and landing rights.

This option might leave the United States unable to wage a conventional war and a major nuclear war involving strategic bombers at the same time. However, in light of the low probability of major nuclear war and the availability of other platforms for delivering nuclear weapons that do not depend on tankers, the loss of capability is unlikely to be a problem.

Perhaps more important, this option might also limit the United States' ability to achieve the Administration's stated goal of being able to prosecute two major regional conflicts that occur nearly simultaneously. In the Persian Gulf War, the military deployed 46 KC-10 and 262 KC-135 tankers. The refueling aircraft retained under this option would be sufficient for a future deployment of similar size and would also provide capability for a simultaneous, smaller conventional deployment in some other theater or for support of a small nuclear mission that involved bombers. But such a force might not permit the United States to fight two simultaneous wars on the scale of Operation Desert Storm.

DEF-16 MAKE THE ARMY RESPONSIBLE FOR CLOSE AIR SUPPORT

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	148	367	652	1,108	1,361	3,637
Outlays	120	314	563	959	1,238	3,194

Ground forces and air forces have typically operated in the same area and provided each other with mutual support. Forces on the ground have defended air bases from attack from both land forces and enemy aircraft. Conversely, air forces--in missions referred to as close air support and battlefield air interdiction--have attacked from the air targets that are beyond the reach of ground-based weapons. Those roles have become more complex, however, as ground-based weapons--helicopters and artillery in particular--have attained the ability to attack enemy assets at longer ranges. This option would relieve the Air Force of the responsibility for providing air support to the Army. A consequence of adopting this option is that the Army would have to rely on its own assets, such as attack helicopters and artillery, to attack targets beyond the range of direct-fire weapons such as tanks.

Even though the Air Force has had responsibility for providing close air support (CAS) to the Army for the past 50 years, several defense experts have expressed concerns and doubts about the willingness or ability of the Air Force to do so adequately. The CAS mission involves attacking hostile targets that are near friendly forces and requires close coordination with the Army. Although the Air Force has an airplane, the A-10, that is dedicated solely to the CAS mission, the service has periodically attempted to eliminate all of the A-10s from its force structure. The Air Force still has 168 A-10s, but that is far fewer than the 400 it fielded in 1988. Moreover, more than half of the remaining aircraft are in the reserve components.

The Air Force has traditionally allotted 25 percent of its fighter aircraft specifically to ground attack missions, which include close air support as well as battlefield air interdiction (BAI). Both those missions involve attacking enemy targets on the battlefield, but in contrast to close air support, battlefield air interdiction would be directed at targets far removed from friendly forces. As the number of A-10s has declined, the Air Force has assigned increasing numbers of its F-16s to those missions. Consequently, three wings of F-16s, or about one-quarter of all of the Air Force's F-16s, could be designated for the CAS and BAI missions. Since the F-16s are multirole aircraft, however, they are not likely to be as well suited to the CAS mission as the A-10, which was designed specifically for it. In addition, the F-16s could be called on to perform other missions of more importance to the Air Force than CAS. All of these factors highlight the concerns Army commanders could have that Air Force aircraft might not be available when the Army needed them to provide air support.

Perhaps in response to these concerns, the Army has developed and fielded its own weapons capable of attacking ground targets beyond the reach of direct-fire weapons. The premier example of such a weapon is the attack helicopter, which can attack armored as well as soft targets and performed ably in Operation Desert Storm. In addition, the Army is developing fire-support weapons with increasingly long ranges and precision-guided munitions capable of attacking some of the targets previously accessible only by aircraft.

With the Army fielding hundreds of attack helicopters and increasingly sophisticated fire-support weapons, it may be possible to relieve the Air Force of the primary responsibility for providing CAS. That change would simplify operations since the Air Force would not have to coordinate its air strikes so closely with the Army in order to avoid attacking friendly troops. Moreover, the Air Force could retire all of its A-10s and reduce the number of types of aircraft in its inventory, thereby realizing some budgetary savings. The

Army could use its currently planned level of forces--attack helicopters and artillery--to attack targets that might today be assigned to Air Force aircraft.

This option would yield significant savings if it led to the elimination of all Air Force aircraft assigned to the close air support and battlefield air interdiction missions. Retiring all of the Air Force's A-10s and about one-quarter of its F-16s would reduce the size of the Air Force by about five wings. Such a reduction in force could save $120 million in 1998 and $3.2 billion over the next five years in operating costs compared with the Administration's 1997 plan.

Eliminating one-quarter of the Air Force's F-16s, however, could limit its ability to carry out its other missions. The F-16 is a multirole fighter capable of performing other tasks, such as air-to-air combat, besides providing air support to the Army. Cutting the F-16 fleet and the tactical Air Force by one-quarter would represent a major reduction in the Air Force's overall capability.

Shifting primary responsibility for close air support and battlefield air interdiction solely to the Army and eliminating Air Force assets assigned to those missions would also have other drawbacks. Having multiple means of attack is a distinct advantage for a commander because it forces the enemy to defend itself against multiple threats. Thus, if the United States can attack its enemies with fixed-wing aircraft, helicopters, and artillery all at once or in rapid succession, the defender's task becomes that much harder.

Another drawback to eliminating from the Air Force all aircraft designated for the CAS and BAI missions is the loss of the ability to react and deploy quickly that is inherent in aircraft. Aircraft are generally the first assets to arrive in theater, since additional time is needed to transport Army equipment, including helicopters, to trouble spots. With fewer aircraft in the Air Force inventory that are capable of CAS, delays may occur before significant assets arrive in theater to perform that mission. And a major lesson some observers have drawn from Operation Desert Storm is that air power can slow or even stop the advance of enemy ground forces. Sharply reducing the number of U.S. aircraft capable of providing close air support would eliminate many of the aircraft that contributed to an early victory in the Gulf War and helped to keep down the loss of U.S. lives.

DEF-17 REDUCE THE NUMBER OF ARMY LIGHT DIVISIONS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	431	1,429	2,774	3,617	3,717	11,967
Outlays	372	1,269	2,528	3,412	3,621	11,202

The active portion of the U.S. Army consists of 10 divisions, six of which are generally regarded as "heavy"--that is, equipped with tanks and other armored vehicles. The six heavy divisions are primarily intended to be used against other armored forces. The other four divisions, referred to as "light" divisions, are useful against less heavily armored forces and were designed to be dispatched quickly and transported easily to trouble spots around the world. They include one airborne division, one air assault division, and two light infantry divisions (LIDs).

The utility of the light infantry divisions has been questioned in the Congress and elsewhere since their creation in the mid-1980s. The Reagan Administration justified the LIDs by emphasizing the need to respond to events anywhere in the world by rapidly dispatching U.S. forces. And, indeed, the light infantry divisions are the smallest and lightest of all U.S. combat divisions. As a consequence, they can be transported as whole units to trouble spots around the world more easily than any other U.S. division.

But recent history indicates that the United States may not need those light infantry divisions since it has the Army's eight other divisions and the combat forces in the Marines. Between 1945 and 1991, about 120 incidents--excluding major conflicts such as those in Korea, Vietnam, and Iraq--required commitment of U.S. ground forces. Of those, the Army was involved in about a third and, even then, generally not in very large numbers. Indeed, only 12 of those incidents required Army forces of division size or larger. One can argue that other units--including the Army's airborne and air assault forces and three Marine Corps divisions --could provide sufficient rapid response instead of the Army's LIDs.

Other questions arise about the capability of the LIDs once they have been transported, presumably to a hostile location. With just 1,600 vehicles and 40 utility helicopters to transport the unit and all its equipment, a light infantry division has limited mobility. Thus, many of the more than 11,000 soldiers assigned to a light infantry division would have to move by foot. A LID also has limited firepower, particularly against an enemy with any kind of armored vehicles. Each division has only 88 long-range antiarmor missile launchers, 54 towed howitzers, and 40 helicopters armed with antitank missiles. The most numerous antiarmor weapon in the LID--162 Dragon medium-range antitank missiles--has a limited capability against modern tanks.

Perhaps the strongest statement about the utility of the LIDs in combat was made by the Department of Defense, which did not send any forces from light infantry divisions to take part in Operation Desert Storm. That conflict was initiated by a relatively unsophisticated foe and occurred halfway around the world with very little warning. The need to establish some military presence in theater very rapidly would seemingly have argued for the use of light infantry forces. Nevertheless, none of the LIDs were deployed. Another telling experience was that of the 10th Mountain Division in Somalia. That light infantry division's firepower and protection proved to be inadequate against even the unsophisticated and poorly equipped troops of a Somali warlord. As a result, parts of a heavy division were dispatched to Somalia to provide armored protection to U.S. forces there.

This alternative would eliminate the remaining two light infantry divisions from the Army's active forces. To permit an orderly drawdown, the divisions would be eliminated gradually over the five-year period. The

alternative would retain light forces of one air assault division and one airborne division. Compared with the Administration's 1997 plan, this alternative would save $372 million in 1998 and $11.2 billion over the next five years.

Despite these savings and the shortcomings of the light infantry divisions, eliminating all of them would reduce U.S. capability in certain situations. For example, LIDs might be useful during combat in areas where armored vehicles could not operate easily such as dense forests, mountain terrain, or cities. They might also be useful for defending areas such as airports or seaports if the enemy did not have armored capability. Finally, in a recent demonstration of the utility of light divisions, contingents from the 10th Mountain LID were instrumental in operations in Haiti.

DEF-18 ELIMINATE FOUR GUARD DIVISIONS

Savings from the 1997 Plan	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	55	221	450	691	828	2,245
Outlays	50	205	427	665	809	2,156

The Army National Guard is manned mostly by part-time soldiers and makes up about half of the Army's combat forces. At the end of fiscal year 1997, about 367,000 people will be members of the Guard, which operates units in all 50 states. Guard units are under the authority of state governors during peacetime, and state governments contribute to the Guard's operating expenses, particularly when units perform state missions. When mobilized for combat, Guard units come under the active Army's chain of command.

Eight divisions--each with three brigades--and an additional 18 independent brigades currently make up the Guard's ground combat units. Additional units in the Guard provide combat support (such as artillery) and combat service support (such as transportation) to combat units in the Army. The Army also relies on the skills of 215,000 largely part-time soldiers in the Army Reserve, most of whom perform support services.

Guard units were an important element of the combat forces the United States expected to deploy in a war with the former Warsaw Pact. Operating at roughly a quarter of the cost of a comparable active unit, Guard divisions and brigades provided a cost-effective way to reach the large force levels that would have been required in a land war against the forces of the former Soviet Union. According to the Army's planning factors, the United States expected to be able to deploy certain Guard brigades at the same time as their active-duty counterparts and to deploy the full divisions, which would require more time to prepare for combat, in a second wave that would have been sent to Europe about a month later.

The Army now contends, however, that those Guard units would require considerably longer to prepare for deployment than it had previously assumed. According to revised estimates by the active Army, full divisions would take up to a year to become ready to go to war. Other analysts maintain that Guard divisions could be ready much more quickly--perhaps within 72 to 120 days of mobilization--possibly in time to contribute to a short war. Brigades might take less time, perhaps as little as two to three months.

The Army's revised estimates--combined with a decrease in overall force requirements for the smaller wars that are now the basis of DoD's planning--have raised questions about whether the Guard's combat units, and specifically its divisions, have a clear mission in a post-Cold War world. Indeed, the Commission on Roles and Missions suggested in its report that the Administration's deployment plans no longer include any of the Guard's eight divisions. That assertion would seem consistent with the relative brevity of currently envisioned wars and with the longer mobilization times now assumed for those divisions. Partly in response to that criticism, and in part to correct a perceived shortfall in Army support forces, the Army plans to convert 12 of the Guard's 42 combat brigades to support units. That plan would ultimately leave the Guard with 30 combat brigades--18 of which would be organized into six divisions and 12 that would stand independently--and 12 support, or "combined arms," brigades. Nevertheless, even after the reorganization, the Guard would still retain six combat divisions that do not have a clearly defined and validated role to play in current war-fighting plans.

This alternative would eliminate four of the eight combat divisions currently in the Guard. It would not affect the Army's plan to reorganize two Guard combat divisions into support units. Upon completing its reorganization plan and implementing this alternative, the Guard would retain two combat divisions and 12 inde-

pendent combat brigades, which should leave the Army with sufficient combat forces to provide a hedge against unforeseen circumstances. Furthermore, since the Army has identified a shortage in its support forces, this alternative would retain all of the support personnel indirectly associated with the deleted divisions.

In order to achieve an orderly drawdown, this alternative would eliminate one Guard division each year starting in 1998 and continuing until 2001. Once fully implemented in 2002, such an action would save about $0.8 billion a year in operating costs. All told, DoD might save about $2.2 billion over the 1998-2002 period.

Eliminating Guard divisions presents a number of problems, however. The Guard argues that eliminating its divisions would harm its ability to provide assistance in domestic crises, such as natural disasters and civil disturbances. Although the remaining Guard units could help in such instances, some states might find themselves with little or no Guard presence. Of course, states could always choose to fully fund some of their Guard units to retain the emergency services. Indeed, guard personnel who were trained to render emergency services in domestic crises might perform better than those who were trained primarily for combat. In any event, the Guard has never been asked to provide a large number of personnel for state missions, though large percentages of individual states' Guard personnel have been called up during domestic crises such as Hurricane Andrew and the Los Angeles riots in 1992. One way to expand the number of Guard personnel available to state governors in a domestic crisis might be to establish interstate agreements, thus allowing the governor from one state to call on the Guard units of another state when needed.

A much smaller National Guard could also present problems at the federal level. The Administration plans to reduce the Army Guard and Reserve from the current level of 582,000 to about 575,000 reservists by 1999. That plan was agreed to in the 1993 "Offsite Agreement," an arduous negotiation involving active and reserve Army personnel as well as personnel from several associations that deal with issues affecting the Army, the Army Reserve, and the Army National Guard. Some of those participants would probably feel that further reductions in reserve personnel violated the terms of that agreement. Furthermore, proponents of the Guard would argue that giving it a larger share of DoD's missions and forces would be a more cost-effective way to restructure the Army's combat forces, because operating costs are much lower for Guard units than for their active-duty counterparts. Finally, some analysts argue that for relatively little cost, the Guard divisions provide a strategic reserve and insurance against unforeseen events or the emergence of an unknown threat.

DEF-19 CANCEL THE ARMY'S COMANCHE HELICOPTER PROGRAM

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	3	190	255	397	440	1,285
Outlays	64	200	265	348	416	1,293

The Army fields about 6,000 helicopters, some of which are approaching the end of their 20-year useful service life or have exceeded it. About 2,000 of the helicopters--the OH-58 Kiowa scout helicopters and the AH-1 Cobra attack helicopters--are Vietnam-era aircraft that the Army plans to replace with the RAH-66 Comanche helicopter. The Comanche will fill both the reconnaissance and the attack roles that those two helicopters now perform.

The Comanche program, when it was conceived in 1983, was intended to develop one aircraft that, in two different configurations, could replace not only the Vietnam-era scout and attack helicopters described above but also the UH-1 utility helicopters of the same vintage. The Army originally planned to buy more than 5,000 Comanches of various configurations. The utility version was dropped in 1988, however, because the program had become too costly. Since then, the Comanche program has included only the attack and scout version, and the quantity has been reduced further, from a planned purchase of more than 2,000 aircraft to just under 1,300. The helicopter is still in the development stage, which will continue at least through 2004. As recently as 1992, the Army had planned to start buying Comanches in 1996, but it has since delayed the start of production until 2005.

These changes in the objective and size of the program have caused the cost of each Comanche helicopter --expressed in 1997 dollars--to more than double since the program began, from $11 million in 1985 to $26 million based on the Army's 1996 estimate. Furthermore, the Comanche has become more expensive to acquire than the Army's current generation of attack helicopter, the AH-64 Apache, which is bigger and heavier than the Comanche. That cost increase is significant, particularly in a helicopter whose development was originally justified on the basis of its being inexpensive to purchase, operate, and maintain. Indeed, the Comanche's high cost calls into question the prudence of pursuing this as-yet-undeveloped aircraft instead of continuing to buy existing helicopters such as the Apache or later models of the Kiowa.

Some analysts have questioned the wisdom of continuing the Comanche program. A General Accounting Office (GAO) report published in 1992 noted not only the increase in the cost of buying the Comanche but also the potential for maintenance costs to increase to three times the original estimates. Those factors, plus the risk of additional cost increases as technical issues are resolved, caused GAO to question the Army's underlying rationale for the Comanche program. In addition, the Comanche, which was conceived at the height of the Cold War, will no longer need to counter threats of the same scale or sophistication as those it was designed to thwart. Indeed, the Comanche is now so similar in capability to the Apache--the aircraft it is supposedly designed to complement--that whether it has a unique role to play in Army aviation is unclear. Without a mission that existing Army helicopters cannot perform, it is hard to justify the continued development of an aircraft that is more expensive to acquire than existing helicopters.

Based on these various concerns, this alternative would provide other means for filling the Comanche's role, at reduced cost. It would cancel the RAH-66 program, thereby saving $2.4 billion in budget authority over the next five years. Some added costs, however, would be associated with buying more helicopters of other types. The Army has already purchased enough Apaches to fulfill the attack role assigned to 13 of its 18 divisions. During Operation Desert Storm, Apaches performed their missions without scout helicopters, and

this alternative accordingly would provide no replacements for the aging Kiowas currently assigned that role in those divisions. The Army, however, needs to replace the aging Cobras assigned to the attack aviation units of the remaining divisions. Armed scout helicopters, known as Kiowa Warriors, were used effectively in the Persian Gulf and could replace the Cobras still in service. The Congress has supported purchasing those aircraft in the past, and the Army has bought a limited number (406). This alternative would buy 18 armed scout helicopters in 1998 and 24 each year thereafter, leading to a total procurement of 519 by the end of 2005. After taking into account the cost of buying those helicopters and canceling the Comanche, net savings compared with the 1997 plan would total about $1.3 billion in both budget authority and outlays over the 1998-2002 period.

The primary disadvantage of adopting this alternative would be the loss of the new aviation technology incorporated in the Comanche. Some analysts would argue that the threats the Comanche is likely to face would not demand the very sophisticated stealth, avionics, and aeronautic technologies slated for the new helicopter, but others would support the program as a way to maintain the U.S. lead in helicopter technology. Some of the Comanche's new technologies are already being incorporated into current U.S. helicopters such as the Apache. Abandoning the RAH-66 program, however, would mean that the Army would have to rely on helicopters designed in the 1960s and 1970s for years to come.

DEF-20 CUT SPENDING FOR DUAL-USE TECHNOLOGY PROGRAMS TO HISTORICAL LEVELS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	108	126	101	107	136	578
Outlays	96	113	109	105	118	541

In recent years, the Congress and the Administration have expanded funding for research and development (R&D) on dual-use technologies--those that have both civil and military applications. One program that was financed with part of that increase was the Technology Reinvestment Project. TRP provided support to consortia that developed or disseminated dual-use technologies; it was administered by the Defense Advanced Research Projects Agency (DARPA) in cooperation with the three military departments and five other federal agencies. In most cases, recipients of TRP awards matched their federal support dollar for dollar.

Several other dual-use programs have also received considerable funding increases over the past several years, including R&D in high-performance computing, materials and electronics processing, and electronics modules. Those programs are administered by DARPA, whose technical managers are given considerable independence in selecting technologies and managing projects. Organizations that receive R&D awards from DARPA are not necessarily obligated to share project costs, although some do.

In 1997, the Administration replaced TRP with the Dual-Use Applications Program (DUAP). That initiative was designed to address criticisms of TRP by focusing only on technologies that are potentially useful to the military and by making all of its awards through a competitive selection process--that is, avoiding special earmarks. The Administration has requested $225 million for DUAP in 1998 and would like funding for that program to continue over the next five years. Under the 1997 request, other dual-use programs would have received about $1.1 billion annually.

This option would limit funding for DUAP and other dual-use initiatives to $1.2 billion, an amount that is consistent with appropriation levels from 1992. Compared with the Administration's 1997 request, outlay savings under this option would be $96 million in 1998 and total $541 million over the next five years.

Advocates of greater funding for dual-use technologies contend that those programs ultimately will help lower the cost of defense equipment. Although military R&D has spawned numerous commercial applications, today some civil products outpace their defense counterparts and are less expensive, particularly those in the field of microelectronics. By incorporating widely available components from the commercial sector, some defense equipment could be made more capable while keeping costs reasonable. Programs such as DARPA's efforts in electronics processing may help to adapt commercial technologies for military use.

Initiatives such as DUAP may also improve the integration of the defense industrial base into civil sectors of the U.S. economy. Historically, military and civil production have been treated as two distinct sectors because of onerous cost-accounting requirements and detailed specifications for military products, among other factors. But as U.S. military spending has declined, integrating those sectors in order to meet future military needs has become more important. Some analysts fear that otherwise, only a few companies would remain in the defense business and retain the capability to produce sophisticated military equipment. That could become a problem if threats to national security emerged that would need advanced technology to counter them. Some advocates also believe that dual-use programs can bolster economic growth in certain industries, especially high-technology ones.

Critics of direct funding for dual-use R&D argue that other policy changes can encourage the integration

of civil and military efforts more effectively. Adopting commercial standards in place of military specifications, for example, may allow weapons producers to incorporate civil components on a more widespread basis than, say, a DARPA-sponsored study in which commercial technologies are customized for military use. Dual-use programs that tailor civil technologies to defense specifications can leave too little in common with the commercial marketplace, thereby defeating one of the key purposes of dual-use items: to benefit from economies of scale in production. Ultimately, dual-use programs may not be sufficient to sustain domestic suppliers of high-technology goods for military equipment. And such programs also cannot control whether companies that develop technology with their help share those innovations with foreign firms, even though such sharing may undermine the objectives of the program.

Moreover, these dual-use programs sponsor a type of R&D for which the grounds for government funding are less clear. Most economists believe that federal support for basic research is justified because the private sector will underinvest in research of that type. More contentious, however, is the degree to which the government should support applied R&D, the type funded by most dual-use programs. As projects move from underlying scientific knowledge closer to products and processes, the commercial benefits of that R&D are likely to become more apparent. Applied research projects could take numerous paths, and it is difficult to select a few projects from among several promising applications and then evaluate critically the role of federal support. Some analysts therefore contend that the private sector--with its vested interests in identifying commercial potential--is better suited to promote applied R&D projects. Furthermore, if supported with federal funds, R&D programs can become entrenched politically and difficult to discontinue.

DEF-21 ASSIGN A WARTIME FUNCTION TO MILITARY PERSONNEL IN TRAINING OR TRANSIT

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	667	3,225	5,197	5,357	5,525	19,971
Outlays	538	2,867	4,905	5,251	5,454	19,015

At any time, about 65,000 of the Department of Defense's active-duty military personnel are either in transit between assignments or undergoing individual follow-on training to learn more military skills or further their professional development. The services do not assign those individuals a wartime responsibility within a unit even though they have usable military skills.

During the Cold War, when the United States was preparing to fight a long, conventional war against the Soviet Union, DoD's wartime planning assumption was that most of those individuals would complete their training and then fill vacancies caused by wartime losses or help to form additional units as the force was expanded. But with the end of the Cold War, DoD now prepares to fight two brief, major regional contingencies. In a short war, the individuals en route to new assignments or undergoing follow-on or professional development training could be used to fill existing deploying units immediately or to substitute for personnel who deploy to the combat theater.

This option would direct the military services to assign those individuals a wartime responsibility in their previous unit, in the unit to which they were traveling, or in another unit that would require their skills. (Only personnel who had already completed their basic and initial skills training, which would give them usable military skills, or who were en route to new assignments would be assigned a wartime role.) If DoD adopted this policy, it would need about 65,000 fewer military personnel, saving almost $5 billion annually by 2000. To carry out this policy, the services would staff certain units below current levels on the assumption that personnel would become available if war erupted.

Some personnel analysts would suggest that this policy could jeopardize military readiness; mobilizing and integrating these individuals into units could take some time because they would have to move from training or other assignments. In addition, the services would prefer not to disrupt the training pipeline because that could make it more difficult to fill positions once the war was over. During the contingency, the training base itself would also temporarily be underused because fewer students would be training there.

Although assigning wartime responsibilities in this way would reduce staffing below current levels, those levels have remained fairly high in recent years. Moreover, since the services are not likely to expand the size of forces--in contrast to planning assumptions during the Cold War--the risk of not fully staffing units would be lower. The services could also distribute reductions in staffing levels to areas that would pose the least risk to meeting wartime contingencies. The services acknowledge that in a major contingency, they might compress training and pull individuals out of courses if they were needed. In fact, the Air Force already simulates such scenarios. During Operation Desert Storm, for example, the Army also required that individuals postpone scheduled moves if their skills were required for the war. Finally, this policy change would reduce costs by using all trained personnel who would be available in wartime. Although personnel in training or en route to new assignments would experience disruptions, so would all personnel facing deployments to meet a contingency.

DEF-22 RESTRUCTURE MILITARY HOUSING ALLOWANCES

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	33	77	123	137	141	511
Outlays	31	74	120	136	141	502

In 1996, the military services spent nearly $6 billion on housing allowances for service members stationed in the United States who do not live in government-supplied housing. The allowance consists of two parts: the basic allowance for quarters (BAQ) and the variable housing allowance (VHA). The amount of each component depends on the member's pay grade and whether he or she has dependents. In addition, the VHA amount varies among different parts of the country, based on periodic surveys of members' housing expenditures. The BAQ is intended to cover 65 percent of the nationwide median housing expenditure of personnel in each grade and dependency status, although it currently covers only about 60 percent of the median. The VHA pays the difference between the median housing cost in each area and 80 percent of the national median. Thus, a typical member is currently expected to cover about 20 percent of the national median cost out of pocket, except in areas where housing costs are so low that the BAQ alone leaves a smaller uncovered cost. A separate overseas housing allowance, which serves a similar function to the VHA, applies to members stationed outside the United States.

This option would make two changes in the way housing allowances are calculated. First, it would combine the separate basic and variable allowances--BAQ and VHA in the United States, and BAQ and overseas housing allowances elsewhere--into a single housing allowance. Second, it would change the way in which the allowance is calculated in the United States, basing the allowance on estimates of housing prices rather than on members' housing expenditures. The option would set allowance rates across the country to equalize the well-being of members facing different prices. (A similar change might be possible for the overseas allowance but was not examined as part of this option.) The Department of Defense (DoD) is reportedly planning to propose a change similar to this option that would be phased in beginning perhaps as early as 1998.

The current system for setting VHA rates has been criticized for not meeting one of its principal goals. As stated by the Seventh Quadrennial Review of Military Compensation in 1992, "a service member should be unaffected by the housing price variations between locations." However, because people respond to differing housing prices by adjusting their consumption of housing services--more or fewer rooms, closer to or farther from work--differences in service members' expenditures between locations may not measure differences in area housing prices or in well-being. A service member sent from an area of higher housing prices to one of lower prices can reduce his or her spending on housing and enjoy better housing. Conversely, when moving from a low-price area to a high-price area, he or she will pay more for less housing. The current system adjusts for the changes in expenditures but not for the changes in benefits. Thus, it tends to undercompensate people stationed in high-cost areas and overcompensate people in low-cost areas, compared with the situation of people facing average housing prices.

Although seemingly involving only a technical adjustment, this option would achieve substantial overall savings because the savings from reduced housing allowances in areas with low housing prices would more than make up for the costs of increased allowances in areas with high prices. The option would save $31 million in 1998 and $502 million over the 1998-2002 period. The savings assume that new allowance rates--either higher or lower--would apply only to people newly assigned to an area; service members would continue to collect housing allowances at the old rates until they were reassigned.

Two major objections might be raised to the change proposed by this option. First, although the change would achieve greater equity among service members assigned to different areas of the country, it would amount to a reduction in the average level of military compensation. Thus, it could cause some members to leave the military who would otherwise have remained. That effect would be partially offset, however, to the extent that members recognized that they would benefit, on average, from the reduced geographic variation in living standards that the change would achieve.

The second objection is that estimating housing prices accurately enough for the purpose of calculating allowances could prove difficult. Available data on housing prices cover geographic areas that do not always coincide exactly with the specific locations in which service members choose to live. Data might be available for a particular city, for example, but not for the corner of that city where a military base happened to be located. Further refining such data could add to the costs of administering the allowance program. The savings estimates above do not reflect any increase in administrative costs. In developing the estimates, CBO used an inexpensive procedure, suggested in a RAND study, that derives prices indirectly from the data on members' housing expenditures that are already being collected. Whether that procedure would prove to be a practical alternative to using independent price data would require further study. DoD's plan would rely on data on housing prices from nonmilitary sources, which could result in the allowances in some areas being badly out of line with the prices that service members actually face in those areas.

DEF-23 REDUCE THE BASIC ALLOWANCE FOR SUBSISTENCE OF ENLISTED PERSONNEL

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	98	231	371	520	675	1,895
Outlays	93	224	363	511	665	1,856

Although originally intended to defray a portion of the cost of subsistence for service members not receiving rations in kind, since 1974 the basic allowance for subsistence (BAS) has generally been raised in lockstep with military basic pay. In part as a result, the money that a typical enlisted service member receiving BAS spends on the food he or she consumes at home is probably less than the amount of his or her allowance (which is higher than what officers receive). The U.S. Department of Agriculture regularly estimates the cost of food at home for various families and individuals; the enlisted allowance is greater than the cost for a typical male adult in a family of four under all but the most liberal of the USDA food plans. Thus, in addition to its intended role as compensation for the lack of government-provided meals, BAS has served as an income supplement for enlisted members who receive it.

The role of the basic allowance for subsistence in supplementing income is particularly important for very junior married personnel, whose seemingly low pay levels have received special attention in the wake of reports that many military families may be receiving food stamps. For a married person in the lowest enlisted pay grade, BAS averages 13.3 percent of total compensation (including the tax advantage that accrues because subsistence and housing allowances are not subject to federal income tax), compared with only about 8.4 percent for all married enlisted personnel. To some extent, however, the concerns about low pay levels are misplaced: even the most junior married enlisted person receives total compensation that exceeds the total family income of nearly 20 percent of U.S. families and half of all young families (those headed by a person under age 25). The use of food stamps apparently derives less from low total compensation than from the way the military's quarters allowance is administered: married personnel living in government quarters are not paid a cash allowance and so, having a lower cash income than their counterparts living off-base, are more likely to qualify for food stamps. According to the Department of Defense, 40 percent of the military families receiving food stamps live on-base, although overall only about 20 percent of the families of members in the three lowest enlisted pay grades live on-base.

The harmful effects of a too-generous subsistence allowance became apparent during Operation Desert Shield/Desert Storm. Many military families were suddenly, and unexpectedly, deprived of the income supplement when their service members were deployed to the Persian Gulf (and lost BAS because they received government rations). Although families' food costs may indeed have fallen, their income fell by even more. Many perceived that as an unfair burden to place on families already hurt by the members' sudden departure. To address that problem in the subsequent deployment of troops to Haiti, the Defense Department adopted a stopgap policy that resulted in the services' paying BAS to all enlisted personnel in Haiti, regardless of whether they had been entitled to it before the deployment, as well as feeding the deployed troops.

This option would reduce BAS for enlisted personnel to a level equivalent to that for officers (currently $154.16 per month), phased in over five years. The most common form of enlisted BAS, which is given to people on leave or authorized to mess separately (for example, single personnel authorized to live off-base and to receive a quarters allowance, and married personnel accompanied by their dependents), would eventually be reduced by 31 percent, to $5.07 per day at 1997 pay rates compared with the current $7.36. Compared with BAS costs under current law and based on the Administration's 1996 plan for reducing military

personnel levels, the option would save about $93 million in 1998 and a total of $1.9 billion over the 1998-2002 period. Additional savings might accrue if the change in BAS rates prompted DoD to abandon the interim policy of paying BAS to all troops in certain deployments. Some of the savings might be offset if a targeted pay raise or some other measure was used to counter specific problems arising from the option (see below).

Linking the BAS rate for enlisted personnel to that for officers reflects an essentially arbitrary choice. Alternatively, the rate could be based on one of the four USDA food plans. Food costs for a male adult age 20 to 50 in a family of four under the low-cost plan (second lowest of the four) are slightly lower than the current allowance for officers, and under the moderate-cost plan are about $33 per month higher. The thrifty plan (lowest cost) is used in determining Food Stamp payments; costs under the liberal plan (highest cost) are roughly the same as the current enlisted BAS level.

The option would have two major advantages in addition to the obvious one of reducing defense expenditures. First, as suggested above, it would reduce or eliminate the problem of families of deployed service members experiencing a decline in their living standard (albeit at the cost of reducing their disposable income at other times). Because the allowance would no longer include an income supplement, the income lost when the member deployed would be roughly offset by the reduction in the family's total food costs. Second, the option would eliminate an inequity in the current system that favors married personnel and others who receive a subsistence allowance over people who must eat in government mess halls, many of whom are single junior personnel. The former receive a payment that probably exceeds their actual food costs; the latter apparently incur out-of-pocket costs on the occasions when they do not eat in the mess halls--about 44 percent of all meals. To a small extent, the cut might discourage some married people from entering the military and some single personnel already in the military from marrying. Some observers might see that as an advantage and others as a disadvantage.

The option achieves its savings by cutting the total compensation of a majority of enlisted personnel. That approach might be undesirable for two reasons. First, it would probably reduce personnel retention and could make recruiting more difficult--both traditional areas of concern. Second, the most junior personnel eligible for BAS would suffer the largest percentage reduction in compensation because the dollar amount of the allowance is the same for all enlisted pay grades.

Although the income of junior enlisted personnel may not be as low as is sometimes thought, that group would definitely be hardest hit by this option. The BAS cut would reduce the total compensation of very junior married personnel by about 4 percent--twice as great a percentage as for senior noncommissioned officers. Offsetting the reduction for junior personnel through an increase in basic pay for the three lowest enlisted pay grades would cost about $300 million per year, based on 1997 pay rates. That possible offset is not reflected in the savings shown in the table.

DEF-24 RESTRUCTURE OFFICER ACCESSION PROGRAMS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	152	250	354	465	464	1,685
Outlays	113	216	318	426	453	1,526

The military services have drawn on several management tools to reduce the size of the officer corps. They have encouraged voluntary separations through specific actions such as tightening criteria for promotion and liberalizing early-out procedures. They have reduced the number of senior officers by selective early retirement, and they can make further cuts through reductions in force if necessary. Finally, the military services have reduced the number of new officers (accessions) who enter the force each year, consistent with the projected smaller force.

This option would restructure officer accession programs beyond the changes the Department of Defense has already made. Overall accession levels would not be cut below the level planned by the department, but more officers would be drawn from lower-cost commissioning programs--Reserve Officer Training Corps (ROTC) and Officers Candidate School/Officer Training School (OCS/OTS)--and fewer from the more costly service academies. In addition, a ceiling would be placed on the per capita amount that could be spent on each recipient of a ROTC scholarship. Further, the option would cut Junior ROTC programs and eliminate the preparatory schools operated by the service academies. Relative to the Administration's 1997 plan, savings in outlays would be $113 million in 1998 and a total of $1.5 billion through 2002.

Of that total, $1.1 billion would come from cutting class size at the three service academies. At present, each academy graduates about 1,000 second lieutenants or ensigns a year. This option would reduce that number to 625 by cutting the size of the entering class for the three academies from a total of 3,000 to only 1,875. Estimated savings from that action reflect only the costs that would change in the near term, such as faculty and cadet pay and operating expenses. Those savings would be offset by the additional costs of about $60 million over the five years that would be needed to procure officers from OCS and ROTC to replace those from the academies. In the longer term, savings also might accrue from changes in the academies' physical plant.

Additional savings under this option would stem from changes in the structure of ROTC programs. In 1995, DoD spent $280 million for ROTC scholarships. (DoD covers other costs of education, but this option deals only with tuition.) About 40 percent of ROTC students now attend private institutions. The average cost per student in 1995 for tuition at four-year private institutions, based on data from the Department of Education, was $11,500 a year, more than four times the average cost of $2,700 at public universities. The option would cap ROTC scholarships at the $2,700 level consistent with average tuition at public institutions. Under a cap, DoD might choose to reduce the number of programs at high-cost institutions, reallocating resources to lower-cost schools in order to maximize the number of officers trained. Alternatively, the department might elect to pay only a fraction of total tuition at high-cost institutions, requiring the student to make up the difference. Students currently enrolled would be allowed to complete their education without financial penalty.

Furthermore, this option would cut Junior ROTC programs by about 25 percent. Junior ROTC provides introductory military training and uniforms to students in secondary school, at an overall cost in 1997 of $170 million. Recent Congressional action significantly expanded Junior ROTC in an effort to place more programs in the inner cities. The reduction called for in this option would restrict that expansion by 50 percent. DoD could retain programs in urban areas or elsewhere.

Savings would be about $40 million in 1998 and $220 million over five years.

Finally, the option would close the preparatory schools operated by each service academy. Those schools accept students who cannot meet the stringent admission criteria of the academies and give them a year of additional training and schooling so that they can gain entry to an academy. Savings in 1998 would be about $20 million and would total about $100 million through 2002.

Supporters of the military academies have contended that those programs are needed to produce future service leaders. That argument has not persuaded the Congress, but past attempts to mandate cuts at the academies have been only partly successful; class size has declined modestly, but academy graduates now account for a larger share of officer accessions than at any time since at least 1980. There is little evidence for the contention that the academies have already reduced their class size to the minimum efficient level, as supporters have claimed in arguing that further cuts would not produce savings.

Opponents of a dollar ceiling on ROTC scholarships might argue that the quality of a graduate from a private institution is higher than that of a graduate from a public institution. Setting a cap--and limiting the number of accessions from private institutions--thus might reduce the overall quality of the officer corps. However, the national security benefits of paying the higher tuition at private schools are unclear at best. Supporters of the public educational system might claim that the quality of education at public schools equals that provided at private ones.

Proponents of Junior ROTC include many Congressional supporters who contend that it provides discipline and reinforces positive values for teenage youth, particularly in inner-city schools. Nonetheless, the program's contribution to national security is difficult to measure, and if its benefits lie in the behavioral changes it encourages, arguably it should be funded in competition with other social programs targeted toward such populations.

Similarly, supporters of the service academies' preparatory schools claim that those schools are needed to provide an opportunity for students from less fortunate circumstances to enter the military academies. Those schools also provide an avenue for enlisted personnel to enter the academies. Opponents argue that the schools are used to enable the academies to recruit athletes and minorities who cannot otherwise qualify for admission, and that at an average total cost of about $40,000 per student they are more expensive than most other secondary education or than OCS/OTS programs, the primary avenue of commissioning for enlisted personnel.

DEF-25 RESTRUCTURE THE BONUS PROGRAM FOR NUCLEAR OFFICERS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	8	12	16	18	19	73
Outlays	8	12	16	18	19	73

One of the pressing personnel issues facing the Navy is meeting its numerical requirements for officers with nuclear training, a challenge that has intensified as the Navy downsizes its force. Moreover, the shortage of nuclear-trained officers, who serve on shore and at sea on submarines and surface ships, is projected to continue in the near future.

One of the major tools with which the Navy is addressing the situation is the Nuclear Officer Incentive Pay (NOIP) program. That program provides a continuation pay (COPAY) bonus of $10,000 a year for nuclear officers who sign a contract to remain in the Navy for three to five years and a smaller career annual incentive bonus (AIB) of $7,200 a year for officers who reenlist for a year without a contract. In addition, the program offers an accession bonus of $6,000 to new officers who choose the nuclear field.

Under this option, the COPAY and AIB portions of the NOIP program would be terminated, saving $8 million in 1998 and $73 million over the next five years. Current Navy requirements call for about 5,500 nuclear-qualified officers. But many of the requirements involve positions unrelated to the nuclear field--as teachers at the Naval War College, the Naval Postgraduate School, or the Naval Academy. Only about one-third of the total positions the Navy sets aside for nuclear submarine officers actually require nuclear training, and only one-fourth of those for nuclear surface officers do so. If fewer officers with nuclear training were willing to stay in the Navy as a result of their cut in compensation, those positions not requiring nuclear-qualified officers would be filled by officers who were not nuclear-qualified.

Proponents of the option argue that even without the bonus, a sufficient number of nuclear-qualified officers would stay to fill the limited number of positions that actually require nuclear expertise. Opponents would counter that even though many positions currently held for nuclear-qualified officers do not actually require the nuclear qualification, it is important that those officers have the same opportunities for advancing their career as their counterparts in other Navy fields. Opponents believe that eliminating the bonus would adversely affect morale and eventually lead to an unsustainable decline in retention.

DEF-26 DENY UNEMPLOYMENT COMPENSATION TO SERVICE MEMBERS WHO VOLUNTARILY LEAVE MILITARY SERVICE

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	157	158	161	169	174	819
Outlays	157	158	161	169	174	819

Many military personnel who leave active-duty service are eligible for unemployment benefits. Their payment amounts are calculated in the same way as those of civilian personnel who qualify for unemployment benefits. However, eligibility of former military personnel differs from that of recipients in the civilian labor force in one important respect. Former military personnel can apply for and receive unemployment benefits even if they voluntarily leave military service, but civilian recipients must have lost their job involuntarily.

The majority of personnel who leave military service do so voluntarily. For example, many choose not to reenlist following completion of their term of service. Others, who have completed a minimum of 20 years of service, opt for voluntary retirement. Still others may choose to leave military service in return for cash payments under the voluntary separation incentive and special separation benefits programs enacted in 1991. A much smaller group is separated involuntarily for reasons related to job or promotion performance or, in recent years, because of the drawdown of military forces.

Under this option, former military personnel would be subject to the same rules as other members of the civilian labor force; that is, only personnel who left service involuntarily would be eligible to receive payments. Eliminating payments to people who left service voluntarily would reduce the number of recipients by at least two-thirds, resulting in savings of about $170 million annually. Because the Department of Defense ultimately reimburses the Department of Labor for the cost of unemployment payments to former service members, those savings would occur in the defense budget.

The unemployment insurance program was established with the intent of aiding people who lost their job involuntarily. Subjecting military personnel to the same rules as the rest of the workforce regarding unemployment compensation thus could be seen as a more equitable use of an existing entitlement program. But if military service is considered to be fundamentally different from other types of employment, one could argue that voluntary separation from service is not comparable with voluntary termination of civilian employment and therefore should not be subject to the same restrictions on eligibility for unemployment compensation.

DEF-27 MERGE THE ARMY NATIONAL GUARD AND THE ARMY RESERVE

Savings from the 1997 Plan	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	131	402	548	562	577	2,220
Outlays	117	370	526	554	572	2,139

The bulk of the Army's forces today can be found in its reserve component, which includes both the Army National Guard and the Army Reserve. Those two organizations comprise 582,000 soldiers, compared with the Army's 495,000 soldiers on active duty. The President can call all or portions of the National Guard and the Army Reserve to active duty during a national crisis such as Operation Desert Storm. The National Guard is organized along state lines and reports to state governors in peacetime, but the Army Reserve is an exclusively federal force. Another dissimilarity between the two organizations is that the Guard includes large numbers of combat units, whereas the Reserve is composed almost exclusively of units that would support combat troops during a conflict by providing transportation and other services.

As the size of the Army and the resources available to it have shrunk over the past few years, some people have questioned the need and efficiency of retaining two separate reserve organizations within the Army. The National Guard is a constitutionally mandated organization, providing states with militias and with forces that are useful to respond to domestic emergencies. The Army Reserve was created early in this century primarily as a way to increase the number of doctors in the military. But it also provided the President with a pool of part-time soldiers who would be readily available for military interventions outside the United States. Over the past decades, however, new laws and court rulings have removed many impediments to Presidential call-up of units in the National Guard. Thus, the need for a large pool of federal reservists has become less obvious.

Furthermore, some people have suggested that many of the units currently in the Reserve could be useful to governors during domestic crises. In emergencies such as earthquakes or riots, state governors have access to the National Guard units in their states. But the Army has recently concentrated combat forces in the Guard and some types of support forces in the Reserve. As a consequence, some units, such as helicopter transport units and medical units, that state governors might need during a crisis are found primarily in the Reserve and are not available to them.

This option would merge the Army National Guard and the Army Reserve into one entity that would retain the dual state and federal status of today's Guard. Such a merger would place a larger number and greater diversity of resources to deal with domestic crises at the disposal of each governor. It would also save money by eliminating administrative organizations that now exist within the Reserve but would be redundant after the merger. Approximately 43,000 personnel could be eliminated from the Reserve. Upon completing the merger and downsizing, the Army could save over $500 million annually. Cumulative savings over the next five years could total more than $2 billion.

Of course, such a merger would have its disadvantages. It would result in turmoil throughout the Reserve as units and personnel transferred to the Guard. Furthermore, although such a merger would put additional units at the disposal of state governors, it might not provide every governor with assets sufficient to meet each and every contingency, because governors have access only to units based in their state. Finally, the resulting reduction in the administrative structure of the reserves as a whole might place a strain on the remaining structure in the event of a large-scale mobilization.

Nevertheless, the idea of merging the Army National Guard and the Army Reserve has been raised several times over the past 50 years. Although such a merger has been rejected repeatedly, giving serious consideration to a more efficient structure for the reserves might be appropriate in these times of fiscal constraint.

DEF-28 ADOPT HMO STAFFING PATTERNS IN MILITARY MEDICAL FACILITIES

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	22	69	117	144	148	500
Outlays	21	66	114	142	147	491

In December 1993, the Department of Defense announced its plans to reform the military health care system by establishing a program of managed care nationwide, referred to as Tricare. Ensuring that people who are eligible for health care from the military have access to high-quality health care benefits and improving the efficiency of the military health care system are two of the major goals of the Tricare program. DoD has already introduced a new approach to delivering and financing health care in the military to encourage coordination among the Army, Navy, and Air Force and to provide them with strong fiscal incentives to control costs. When fully implemented, Tricare will also introduce several managed care strategies, which many civilian plans have adopted, to improve the cost-effectiveness of the system.

This option, building on the incentives under Tricare, would require DoD to adopt staffing patterns at the military medical facilities based on the standards used by civilian health maintenance organizations. HMOs are generally accepted as a cost-effective way to deliver care to a defined group of enrollees by controlling their use of health care and delivering services as economically as possible.

Putting HMO staffing patterns into effect could lead to substantial savings for DoD by reducing the overall number of physicians the military employs. Civilian HMO staffing standards suggest that DoD would need 8,060 physicians. That number is based on the assumption that about 5.1 million beneficiaries seek care from military medical facilities worldwide; the number is adjusted upward for differences in age and sex of military beneficiaries and civilian HMO enrollees. Recognizing other key differences between military and civilian HMOs, such as training and the services' readiness requirements, the number of physicians needed would rise to 12,070. At the end of fiscal year 1997, however, DoD plans to have about 13,290 physicians--or about 1,220 more than required for the military in this option. By having fewer physicians, DoD could lower health care costs by $21 million in 1998 and $491 million over five years, in comparison with the Administration's 1997 plan. These estimated savings are in addition to those resulting from the drawdown already planned for uniformed and civilian physicians. The estimates also assume that HMO staffing standards would be phased in over three years.

Even though adopting HMO staffing patterns would be consistent with the department's move toward managed care for the military, this option has some drawbacks. HMO staffing patterns assume significantly lower levels of health care use by enrollees than is true for the military beneficiaries who currently use the military's medical facilities. Therefore, reducing the number of military physicians would decrease the access of beneficiaries to military medical care.

The higher rates of health care use by military beneficiaries compared with HMO rates, however, underscore the differences in practice patterns between military physicians and those who work in civilian HMOs. Unless military physicians changed how they practice medicine, reducing the number of physicians could lead to rationing or poorer service. That said, phasing the HMO staffing patterns in over three years, as this option assumes, might mitigate many of the potentially adverse effects of those cutbacks on beneficiaries. That phase-in period would allow physicians some time to understand the variations in clinical practice patterns between HMOs and the military and to modify their behavior accordingly. DoD could support those efforts

by trying to understand clinical variations among the services as well as differences in practice patterns among physicians.

A more serious problem that relates directly to the issue of care is the possibility that the number of eligible military beneficiaries electing to use the military health care system might grow. With more beneficiaries, the problems of excess demand, rationing, and declines in the quality of service would be greater than assumed here, because the number of physicians assumed in this option might not be sufficient to meet HMO staffing patterns for the military.

In view of these uncertainties, this option makes the conservative assumption that beneficiaries receive all of their health care at military medical facilities, though currently they actually receive about 20 percent of their care from civilian providers paid by DoD. Indeed, accounting for the care that beneficiaries receive from civilian providers could lower the number of physicians needed to meet civilian HMO staffing standards by as much as 20 percent--or from the 8,060 assumed here to 6,450.

DEF-29 REVISE COST SHARING FOR MILITARY HEALTH CARE BENEFITS

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	362	355	355	355	355	1,781
Outlays	305	346	350	353	353	1,707

About 8.2 million people are eligible to use the military health care system. That total includes all men and women on active duty, their spouses and children, and retired military personnel and their dependents and survivors. Yet only about 6.3 million of them actually use the military's system of care. Many of those who are eligible choose instead to rely on other insurance coverage. Eligible people do not have to enroll or otherwise commit themselves to use the military system. Instead, they can elect to use military care on a case-by-case basis, thus creating major cost and management uncertainties for military providers.

Beneficiaries who choose to use the military's health care system receive most of their care in the military's hospitals and clinics (referred to as the direct care system). Other care is given by civilian providers who are reimbursed by a traditional fee-for-service insurance program known as the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). Care furnished in military facilities is virtually free to the beneficiary, whereas CHAMPUS users bear higher out-of-pocket costs for the care they receive, although they are not required to pay an insurance premium.

The Department of Defense, however, is now implementing a plan, known as Tricare, for reforming the current system of military health care. DoD plans to make Tricare available to all military beneficiaries nationwide by the end of 1997. Under that plan, beneficiaries can choose among three options for health benefits: Tricare Prime, a plan modeled after private-sector health maintenance organizations (HMOs); Tricare Standard, the standard CHAMPUS benefit plan; or Tricare Extra, a preferred provider option that beneficiaries participating in Tricare Standard are allowed to use on a case-by-case basis. Only Tricare Prime requires beneficiaries to enroll. Active-duty personnel and their dependents do not pay an annual enrollment fee, but retirees pay $230 for single and $460 for family coverage. (Beneficiaries who are 65 years of age or older are not allowed to enroll in Tricare Prime under provisions governing CHAMPUS eligibility.)

Tricare makes many changes to the military health care system, but those changes may not be sufficient to remedy the inefficiencies that have beset DoD's management and delivery of health care. In an effort to improve the Tricare program, this option would make two modifications to the military health care benefit. The first would require all beneficiaries, except those who are 65 years of age or older, to enroll in either Tricare Prime or Tricare Standard as a precondition for using the military health care system. Annual enrollment fees for Tricare Standard would be modeled after the fees established for Tricare Prime. Active-duty personnel and their dependents would pay no fee, but retirees under the age of 65 would pay an annual fee of $115 for single and $230 for family coverage.

The second modification would equalize the cost-sharing requirements for outpatient care for all beneficiaries regardless of whether that care was received in a military or civilian setting. New cost-sharing requirements for direct military health care would be modeled after the civilian cost-sharing requirements for Tricare Prime.

Savings in outlays under this option could amount to about $305 million in 1998 and about $1.7 billion through 2002. Those savings would stem from the revenue generated from enrollment fees, increased copayment charges, and the reductions in patterns of use by beneficiaries in response to higher cost sharing. Some

of those savings, however, would be offset by the cost of modifying existing automated information systems to collect the higher fees, which has not been included.

All three Tricare plans would require that beneficiaries seek care through the direct care system before going to a civilian provider. Beneficiaries using the direct care system would continue to pay very little out of pocket. The costs for hospital care would not change: most beneficiaries would pay between $4.75 and $9.70 per day, and retired enlisted personnel would pay nothing. Moreover, outpatient visits and prescriptions would continue to be free for all beneficiaries.

Beneficiaries using civilian providers would generally continue to pay more out of pocket for their care under Tricare than if they used the direct care system. How much more would depend on the beneficiary's choice of plan. Enrollees in Tricare Prime would pay the least out of pocket for the care that they obtained from a civilian network provider: most beneficiaries would pay about $11 per day for hospital care and between $6 and $12 for outpatient care. The cost-sharing requirements for Standard and Extra users would generally be higher.

Aside from raising revenue, this option would yield many other benefits. An efficiently managed system would require DoD to be able to identify the population for whom health care was provided. Tricare begins to build a better foundation for DoD by requiring people who choose Tricare Prime to enroll. But DoD would still face a challenge in planning for people who did not enroll. Military providers need to be able to plan for the health care needs of a defined population to develop per capita budgets and build cost-effective health care delivery networks. Those strategies can be put into effect only if all beneficiaries commit themselves either to use a military plan or to rely on nonmilitary sources of care. The universal enrollment requirement in this option would accomplish that. Charging more for direct care would also help curb excessive use of services in military facilities by creating the same incentives for beneficaries who used the military treatment facilities as for those who used civilian providers. Finally, this option would eliminate the inherent inequity of providing more generous health care benefits to people who live near a military hospital or clinic.

This option also has drawbacks. Because medical care is a key part of military compensation, military families might view increased charges as an erosion of benefits. That could be of particular concern during a major drawdown of forces, which has already created considerable uncertainty among military families. Recruitment and especially retention could suffer, although enrollment in Tricare would continue to be free for active-duty personnel and their dependents, in contrast to the premiums typically required for enrolling in other medical plans offered to civilian employees in either the federal government or the private sector. Nor should rising charges necessarily harm health, because evidence shows that people at ages and income levels typical of military beneficiaries seek needed care even when they share costs.

DEF-30 DOWNSIZE THE MILITARY MEDICAL SYSTEM

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	278	827	1,762	2,464	2,702	8,033
Outlays	162	755	1,187	2,385	2,583	7,072

The Department of Defense operates an extensive military medical system that is the chief source of health care for about 6.3 million people, including 1.6 million uniformed personnel. The need for the system stems primarily from its mission to care for military personnel in wartime. In peacetime, military medical personnel train for their wartime mission and also provide care for active-duty personnel, their dependents, and retirees and their families.

During the Cold War, wartime military medical requirements were based largely on the scenario of an all-out conventional war in Europe. The expected high casualty and injury rates generated demands for far more hospital beds and physicians' services than military budgets could afford. The military built large medical systems incorporating some 30,000 hospital beds in the United States and requiring the services of 13,000 active-duty physicians.

This option would restructure the military health care system based on the reduction in wartime medical requirements that has occurred since the Cold War ended. Although the size of the system has been reduced slightly in response, wartime requirements have plummeted so sharply that the military medical establishment in the United States now has more than twice the capacity needed to meet the projected wartime demand for medical care. Substantial reductions in the number of facilities--and personnel--in the military health care system may therefore be possible.

According to a study for the Department of Defense conducted by RAND, for example, the military could eliminate all but 11 of today's 94 hospitals in the United States. That would reduce the wartime capacity of the system in the United States, as measured by the number of hospital beds, by more than two-thirds--from about 18,000 beds to about 5,500 beds. In doing so, DoD's health care system would be able to meet about 60 percent of the total wartime requirement for 9,000 beds, a significantly higher percentage than it ever met during the Cold War. As DoD has traditionally planned, the Department of Veterans Affairs and the civilian sector would provide the additional beds during wartime.

To date, DoD has no plans to make such deep reductions in the size of its medical establishment. Military medical officials argue that military medical facilities and the care those facilities provide in peacetime are essential to train physicians and ensure medical readiness for wartime. In addition, they claim that they must maintain a large enough establishment to attract, recruit, and retain medical personnel. In principle, however, DoD could separate its responsibility to provide beneficiaries with access to medical care from its direct provision of peacetime health care in military facilities. Indeed, given that the department reimburses beneficiaries for care received from civilian providers through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), it already makes that separation to a degree.

Downsizing the military's medical system to such an extent would obviously have a major impact on training and preparing for wartime. Such an effort would require DoD to strengthen its affiliation with the civilian sector to provide wartime training for military medical personnel, meet some of the requirements for active-duty personnel, and ensure an adequate supply of wartime beds. Developing those closer ties with the civilian sector might be worth the effort, since practicing medicine in the civilian sector would probably afford military medical personnel more experience in treating the diseases and injuries that they might be re-

quired to deal with in wartime than would treating mostly civilian patients in military medical facilities. (See Congressional Budget Office, *Restructuring Military Medical Care*, July 1995, for a fuller discussion of this subject.)

This option would also have a significant impact on the way that DoD provides health care to the millions of people who rely on the military system. A downsized medical establishment would drastically limit the ability of DoD to provide care directly to its beneficiaries, including military personnel. Active-duty personnel would receive their health care in both military and civilian settings; other beneficiaries--dependents of active-duty personnel and retirees and their families--would have to depend entirely on the civilian sector.

Carrying out such an aggressive restructuring of the military medical system would offer substantial savings. Net savings in outlays would be $162 million in 1998 and more than $7 billion over five years. Those net savings reflect both the costs avoided by downsizing the military health care system and the costs of providing an alternative source of health care coverage for non-active-duty beneficiaries.

Costs Avoided by Downsizing. Under one definition of wartime readiness, DoD could reduce its net annual budget authority by about $821 million in 1998 and more than $28 billion through 2002. That estimate of savings accounts for the eventual elimination of CHAMPUS, the provision of health care to active-duty personnel, and the costs of closing down the military medical system; it does not, however, reflect the costs to the federal government of cleaning up hospital sites, because DoD would have to pay those costs anyway.

Costs of Health Care. Any serious effort to restructure the military health care system would probably consider the costs of providing an alternative source of health care coverage for non-active-duty beneficiaries. For that reason, this option assumes for illustrative purposes that DoD would offer non-active-duty beneficiaries the opportunity to enroll voluntarily in the Federal Employees Health Benefits (FEHB) program. As an employer, DoD would pay the government's share of the premiums for the plans that beneficiaries selected, modeled on the premium-sharing arrangements between the government and nonpostal employees. Another key assumption of this option is that DoD would ensure that all of its beneficiaries over the age of 65 had full coverage under Medicare.

Assuming gradual implementation of this option, the total cost to the government of providing an alternative source of health care to non-active-duty beneficiaries would be about $500 million in 1998, growing to almost $19 billion over the next five years. Based on that estimate, the government's cost would be substantially less than the savings it could realize by downsizing and restructuring the military health care system.

This option might be opposed for several reasons. Beneficiary groups might object because enrolling in a plan offered under the FEHB program would cost them substantially more on average than what they pay out of pocket for care in the military health care system today. Nevertheless, many FEHB plans would offer improved coverage to military beneficiaries and so might be worth the higher out-of-pocket costs.

This option would also require DoD and the Congress to proceed unambiguously with separating peacetime care from wartime readiness. Military medical officials strongly oppose downsizing the military medical system on the grounds that such actions would jeopardize medical readiness. But in fact, this option would make wartime medical readiness the primary objective of DoD's medical planning. In the past, DoD has had difficulty balancing the wartime mission with peacetime care. DoD has stated that it has not always been able to serve its wartime mission well given its tendency to emphasize the delivery of peacetime care at the expense of wartime preparedness. This option would help to address that problem by redefining the responsibilities of the department.

DEF-31 CLOSE THE UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	19	37	53	94	91	294
Outlays	16	33	49	86	89	273

Historically, the Department of Defense has faced shortages in medical personnel, particularly physicians. To alleviate that situation, DoD has developed various programs to provide a supply of those personnel. One such program is the Health Professionals Scholarship Program (HPSP), which pays tuition and a stipend to medical students and to students in other health-related programs in return for a military service obligation. Another is the Uniformed Services University of the Health Sciences (USUHS), a medical school operated by DoD.

The Congress created the university in 1972 to train physicians committed to long-term military careers. At a total cost of about $100 million in 1995, the school provides a full education for its participants, including a stipend to cover room, board, and books. Based on figures from 1995, USUHS is the most expensive source of military physicians at about $615,000 per person. By comparison, scholarships cost about $125,000; other sources, such as the Financial Assistance Program (FAP), cost about $60,000. Even after adjusting for the lengthier service commitment required of physicians trained at USUHS, the cost of training them is still higher than that of training physicians from other sources.

USUHS has met only a small fraction of DoD's need for new physicians--less than 12 percent in 1994, for example. Scholarships provided over 80 percent, and the remaining 8 percent came from other sources, including volunteers.

This option assumes that the class of students admitted in August 1997 would be USUHS's last; the institution would close at the end of fiscal year 2001 after those students had graduated. Other programs for obtaining physicians would be expanded to offset the loss of physicians trained at USUHS. CBO's estimate of the Administration's 1997 plan, as modified by Congressional action, assumes continuation of the USUHS program at current levels. Compared with that plan, net savings to the defense budget would be $16 million in 1998 and $273 million over five years. Those savings include reductions in military and civilian personnel assigned to the university, which would be in addition to planned drawdowns. They also reflect the added cost of obtaining physicians from other sources, such as the HPSP and FAP.

Congressional support for this option would be hard-won. For the past two years, the Administration has proposed closing the university. Each year, however, the Congress has directed DoD to keep USUHS open. In its reasons for doing so, the Congress has cited many of the arguments of the university's supporters. Those supporters claim, for example, that USUHS physicians are better trained for the special needs of the services because of the university's focus on the study of military medicine and preparation of military medical officers. In addition, some of the higher costs of USUHS are repaid, in effect, because USUHS-trained physicians have a longer service commitment than physicians from other sources. For example, graduates of USUHS must pay back seven years of active duty, whereas scholarship recipients must pay back only about one year of active duty for each year of health professional training. The longer tenure of USUHS graduates may enhance stability in the medical corps and reduce demands on the other sources of physicians.

Supporters of USUHS also argue that direct cost comparisons between it and other sources of physicians may be unfair to the university because of indirect subsidies that the federal government provides to medical schools, which in effect raise the true governmental

cost of physicians from sources other than USUHS. Nonetheless, taking those subsidies into account would lead to the dubious conclusion that closing USUHS would increase the amount that the federal government spends on indirect subsidies to medical schools.

DEF-32 CLOSE AND REALIGN ADDITIONAL MILITARY BASES

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	0	-381	-886	-140	717	-691
Outlays	0	-118	-412	-434	-34	-998

NOTE: Savings for this option do not include the costs for environmental cleanup since the Department of Defense is obligated to incur such costs regardless of whether it operates or closes bases.

Starting in 1988, the Department of Defense sought to achieve savings by closing military bases. DoD concluded that the reduction in military forces justified cutting back the number of bases. To elevate that process beyond parochial concerns, the Congress set up the Commission on Base Realignment and Closure in October 1988 (BRAC I) and subsequently chartered additional commissions to meet in 1991, 1993, and 1995 (BRAC II, III, and IV). Those commissions have directed the closure and realignment of hundreds of military installations in the United States, Puerto Rico, and Guam. According to current DoD estimates, BRAC actions will yield 20-year savings with a net present value of about $57 billion. The department estimates that when all four BRAC rounds are completed, it will save about $6 billion a year in operating costs.

This option would authorize another round of base closures and realignments. If history is a guide, this option would add to costs over the next five years. But between 1998 and 2007, this option could save about $6.4 billion in budget authority and about $4.5 billion in outlays as the department begins to realize steady-state savings. The estimates of the near-term costs and long-term savings for this option are based on DoD's experience and current projections for the four earlier rounds of base closings.

Closing and realigning additional military bases is consistent with DoD's overall drawdown of forces. By several measures, the reductions in military forces significantly exceed the planned cutback in the number of bases. When the services have carried out current plans to reduce the force structure, for example, the Army will have cut the number of active and reserve divisions by 36 percent, the Navy will have reduced the number of battle force ships by 37 percent, and the Air Force will have lowered the number of active and reserve tactical fighter wings by 44 percent. By the end of 1999, when DoD will have completed implementing the Bottom-Up Review and virtually all of the past BRAC closure and realignment actions that it began in 1990, military and civilian end strength will have fallen by about 968,000 positions--a reduction of about 31 percent from personnel levels in 1990. By one measure, reductions in the base structure have not been as extensive as those in the force structure: DoD estimates that when all rounds of closures and realignments have been completed, the replacement value of the base structure (the cost of replacing all buildings, pavements, and utilities) will have decreased by only about 21 percent.

Some analysts believe that DoD can further reduce the number of military bases. In March 1995, the Secretary of Defense indicated that he would recommend that BRAC authority be extended to permit another round of base closures because the services had indicated the potential for further cuts. In the *Department of Defense Base Closure and Realignment Report* of March 1995, the department stated that opportunities existed for further cutbacks and consolidations of depot maintenance facilities, defense laboratories, test and evaluation installations, medical facilities, and training bases for helicopter pilots.

Others believe that the BRAC cuts have gone far enough in matching the planned reductions to the force structure, most of which have already been carried out. The base structure, they believe, should retain enough excess capacity to accommodate emerging risks to na-

tional security that could require a surge in the number of military forces.

Closing military bases can produce substantial savings. But experience indicates that the actual savings from another round of cuts could be lower than expected. Projected net savings for BRAC II, for example, have declined from the initial estimate of $2.9 billion to about $1 billion at present. Higher environmental cleanup costs and lower revenues from the sale of property explain most of the change in DoD's estimates.

Furthermore, closing bases requires a substantial up-front investment that may be difficult to justify in a constrained budget environment. Up-front costs for this option could amount to about $1.4 billion in budget authority during the 1998-2001 period, when most of such costs would occur. For example, DoD estimates that the costs of military construction activities to implement BRAC I and BRAC II amounted to about $2.8 billion.

Closing and realigning additional bases could also make better use of federal property. Former military bases are transferred either to other federal agencies or to local redevelopment authorities for economic development or for nonprofit use by the public. The federal government plans to retain about 58 percent of surplus property resulting from BRAC I and BRAC II closures; about half of that property will be used for wildlife protection, and a substantial portion will be used for parks and recreation, prisons, and Job Corps training sites. About 20 percent of the surplus property from those two rounds will be used for public facilities, including commercial airports, educational facilities, housing for the homeless, and state prisons. About 12 percent is slated for economic development programs to help offset the local economic effects of closing bases. DoD plans to sell about half of the remaining 10 percent of the property to private purchasers and has not yet completed plans for reusing the rest.

DEF-33 REDUCE PROFESSIONAL DEVELOPMENT EDUCATION

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	88	310	449	461	474	1,782
Outlays	79	286	431	455	470	1,721

Professional development education courses are designed to prepare both commissioned officers and noncommissioned officers (senior enlisted personnel) for new leadership and management positions or to provide them with advanced training. Those courses provide broad professional training in leadership and management, military science and national security policy, acquisition management, or advanced training in a particular field; they generally do not focus on specific job skills. The length of the training varies, but the time and number of personnel involved are substantial: on any given day in 1996, for example, an average of 12,600 personnel will attend professional development education programs in residence.

Most of this training is conducted by the individual services at 23 military schools and over 80 other military installations around the country. In many cases, personnel must undergo such training before receiving a promotion. About two-thirds of this training is for commissioned officers and one-third for noncommissioned officers. Almost all of the training is for active-duty personnel. Each service has both a command and staff college to prepare commissioned officers for mid-level staff duties and a senior service school, or war college, to prepare officers for senior positions. Courses at those leadership schools vary in length from 12 to 44 weeks. Senior enlisted personnel receive analogous training to prepare them for management positions; they take courses in leadership, human relations, and administration over a period of, typically, four to 40 weeks. Personnel can also meet some training requirements by taking military correspondence courses or by taking courses at local universities; the services incur little expense with such nonresidential leadership training.

Leadership training accounts for about half of residential professional development education. The remainder consists of sending personnel to military schools or civilian universities for undergraduate or graduate course work. That training is designed to encourage individuals to complete undergraduate degrees to improve the general educational levels of service personnel or to acquire advanced knowledge in their field.

Residential professional development training is expensive, costing the services over $900 million annually. The small size of many classes, the length of courses, and the salaries of military personnel while in training largely account for the high cost. The average annual cost per student in residence at a school is about $70,000.

During the 1980s, the services increased their investment in residential professional development training for both commissioned and noncommissioned officers by almost 50 percent. Unlike training levels for new enlistees and officers, which have fallen in tandem with the drawdown of military personnel, the amount of professional development training provided has remained at about the 1989 level. Training levels remained high in the Army Navy, and Air Force in part because the number of commissioned officers did not fall in proportion to the decrease in the number of active-duty personnel. In contrast, professional development training for noncommissioned officers rose dramatically even though the share of those eligible for that training fell.

At the same time, the average number of days of professional development training provided for all eligible active-duty personnel has grown by almost 30 per-

cent, from seven to almost nine days a year. Average annual training days will grow by 12 percent for commissioned officers and by over 80 percent for noncommissioned officers between 1989 and 1997. Those increases reflect greater emphasis on residential professional development, particularly for noncommissioned officers.

This option would decrease the amount of professional training conducted in residence by one-third in the next two years, saving over $450 million a year in outlays by 2001. Savings would result not only from decreases in training expenses, such as the cost of materials and paying civilian instructors, but also from decreases in the total number of military personnel needed by the services. (DoD does not consider personnel in training to be available for other positions.) Such a reduction would adjust the level of professional residential development training to that set during the 1980s when funding for training and support of forces was at historically high levels. The services could distribute that reduction among the different types of professional development training, based on their requirements for officers of different ranks and for personnel with advanced training in particular areas.

Reducing professional development training would have some drawbacks. The reduction would run counter to the increased emphasis the services have placed on residential classroom training, which they believe is superior to training conducted by correspondence or on the job. Moreover, if the services continued to offer training to fewer students but retained the same number of locations, then the savings, though substantial, would not be proportional to reductions because the costs associated with bases, facilities, and equipment would only partially adjust to smaller loads.

The services have not offered any explanation of why proportionately more residential professional development training is needed in a smaller force. This option would encourage the services to concentrate their resources on the types of training they consider most important, to reduce the number of officers, and to look more carefully at opportunities to consolidate their training courses at fewer locations to improve efficiency and save money. Finally, military personnel concerned with advancing their careers could continue to take professional development training by correspondence, at their home bases, or at local universities on their own time if residential training was not available.

DEF-34 REDUCE FUNDING FOR DOE'S CLEANUP PROGRAM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	621	621	621	621	621	3,105
Outlays	448	609	621	621	621	2,920
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	783	957	1,137	1,323	1,510	5,710
Outlays	565	893	1,083	1,268	1,454	5,263

The Department of Energy (DOE) is engaged in a massive effort to resolve environmental problems at its nuclear weapons complex. The complex comprises more than 100 sites in 36 states and territories where radioactive materials were processed and nuclear weapons were produced beginning in the early 1940s.

For 1997, the Congress appropriated $6.2 billion to DOE for its environmental management (EM) program. Of that total, about one-third is for environmental restoration; the rest is for managing hazardous (including radioactive) and nonhazardous wastes, stabilizing nuclear materials and facilities, researching and developing technologies for more effective cleanup, and general management and oversight.

Under this option, DOE's EM budget would be cut 10 percent relative to the 1997 level. Savings in outlays from the 1997 funding level would be $448 million in 1998 and $2.9 billion over the 1998-2002 period. Measured from the 1997 level adjusted for inflation, outlay savings would be $565 million in 1998 and $5.3 billion over the five-year period. A 10 percent cut is consistent with a recent DOE estimate that 49 percent of the budget for waste management and cleanup activities addresses high risks to the public, workers, or the environment and 39 percent addresses medium risks. Other cleanup activities carried lower risks that would not cause significant effects in the next 10 years.

Deferring cleanup at lower-risk sites might prevent DOE from complying with agreements it has made with the Environmental Protection Agency (EPA) and state regulatory agencies. Those agreements establish specific milestones that DOE must meet or face fines and other penalties. DOE estimates that 7 percent of the EM budget is for cleanups that present a low risk but are of high priority in complying with those agreements.

Congressional action might be needed to avoid exposing DOE to penalties for not meeting the milestones. The Congress, for example, could direct DOE to renegotiate agreements so as to postpone noncritical cleanups--especially where the risks to cleanup workers are high relative to the risks of continuing to monitor the site and where technologies are not currently available for effectively treating and disposing of hazardous and radioactive wastes. The renegotiated agreements might also allow lower standards of cleanup on sites destined for industrial use and greater flexibility in the choice of cleanup methods.

Such actions could substantially reduce cleanup costs. DOE estimates that its recent renegotiation of the Hanford Tri-Party Agreement has saved more than $1 billion. Although each situation is unique, state regulators and EPA have incentives to renegotiate the agreements. In most cases, they entered into the agreements long before enough information was available to assess the potential benefits and costs of specific cleanup actions. As more information becomes available, they may decide to reconsider their priorities.

The Congressional debate over reauthorizing the Superfund program includes many of the same ques-

tions about cleanup goals, suitable standards for waste disposal, and the appropriate balance of risks and costs. The resolution of those issues could serve as guidance for DOE's cleanup policies and, combined with reductions in appropriations for DOE, could save large sums of money.

Supporters of DOE's current plans point to substantial progress in managing the cleanup program effectively. They acknowledge that the program had management problems in its early years--problems common to new, rapidly growing programs and exacerbated by DOE's tradition of secrecy in its nuclear weapons mission--but claim that DOE is now on the right track. Making cuts could introduce more turmoil into a program that is just becoming stabilized. In addition, communities neighboring the contaminated facilities would probably object to delays and changes in cleanup standards unless they would lead to safer methods and more effective solutions, including turning DOE facilities over to other industrial uses.

DEF-35 INCREASE COMPETITION BETWEEN PRIVATE-SECTOR AND DEPARTMENT OF DEFENSE HOUSING

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	680	720	710	700	690	3,500
Outlays	320	470	580	640	650	2,660

Approximately two-thirds of the military families in the United States receive cash housing allowances and rent or purchase housing in the private sector. The remaining third live in housing units provided by the Department of Defense. The department's policy is to provide housing units only if the private sector is unable to provide adequate, affordable housing. Nonetheless, DoD does not plan to reduce its housing stock in proportion to the ongoing reduction in U.S. military forces. As a result, CBO projects that the percentage of military families in the United States living in DoD housing will increase from 30 percent in 1990 to 35 percent in 1997. That increase means higher costs for DoD. Over the long run, the average annual cost of providing one unit of DoD housing (including the amortized cost of construction) is approximately $12,000, compared with approximately $7,600 for housing allowances.

DoD's plan for military family housing also presents a funding problem in the near term. Because much of the department's housing stock is near the end of its service life, maintaining that stock will require an immediate investment program. DoD plans to use private capital to meet some of those needs. The 1996 defense authorization act expanded DoD's ability to offer rental guarantees or leases to private investors and to enter into public/private partnerships. Those provisions may enable DoD to attract private funds. By itself, however, greater access to private capital could reduce the need for appropriations in the near term without lowering the long-run cost of providing DoD family housing.

This option offers an alternative approach that might both resolve DoD's immediate funding problem and reduce the long-term cost of ensuring that military families have adequate housing. Under this option, all military personnel eligible for family housing would receive cash housing allowances regardless of whether they lived in DoD or private-sector units. Each family would be free to choose between DoD and private-sector housing. In the short run, DoD housing managers at each installation would set rents at market-clearing levels (levels at which there would be neither excess vacancies nor waiting lists). In the long run, DoD would revitalize and replace units only if the value of the new unit to service members (the rent that it could command) was sufficient to cover operating costs and amortized capital costs.

Under this approach, DoD housing would for the first time compete with private housing on a level playing field. Currently, only families living in private-sector housing pay rents that cover the full cost of their housing. The housing allowance that families in DoD housing forfeit (which is, in effect, the rent they pay) is on average equal to about 60 percent of the costs that the federal government incurs in providing a unit. In effect, DoD subsidizes the cost of on-base housing. That subsidy contributes to the demand by military families for on-base units, making it difficult for the department to reduce its housing stock and require greater use of private-sector housing.

Total outlay savings under this option compared with CBO's estimate of the Administration's 1997 plan could amount to $320 million in 1998 and $2.7 billion through 2002. Some of those savings would result from more efficient management of existing units as the on-base units were forced to compete with less costly private-sector housing. Other savings would result from lower revitalization and replacement costs. DoD would retire aging units rather than undertake investment projects that would not be justified by the value of the units to service members (as indicated by projected rental payments).

These estimates reflect the cost of raising the housing allowances to hold constant the total out-of-pocket cost that service members incur (the difference between their total expenditures on housing and the total amount of allowances provided). As a result, they reflect real resource savings, not the fact that service members would have to pay higher rents for DoD housing.

One disadvantage of this option is that it represents a significant break with tradition. At least since the onset of the Cold War, a substantial minority of married service members have lived in housing that DoD provided "free" in lieu of cash allowances. Because this option would eliminate that practice, it could be perceived as a reduction in the level of total compensation (despite the offsetting increase in housing allowances for the military as a whole). In addition, unless DoD responded to competition with private-sector housing by dramatically reducing the cost of providing on-base housing, the number of families living on-base would gradually decline as DoD units were retired. That change in housing patterns would be a disadvantage in the eyes of people who feel that the on-base lifestyle makes an important contribution to military spirit.

Other disadvantages include the costs of determining initial rental rates and collecting rents. Special arrangements would have to be made for historic units (units that DoD must maintain even if rents do not cover costs) and for personnel who are required to live on-base to be available in the event that military needs arise (approximately 3 percent of all personnel). Since a rental system might have to be phased in as individuals started new tours, inequities might exist initially between people under the old system and those under the new.

Yet this unsubsidized system of market-clearing rents offers some important advantages. It would eliminate the frustration and costs borne by military families under the current system in which waiting lists are used to ration on-base units. Service members would no longer have to move into a private-sector unit at the beginning of their tour only to move again into an on-base unit when they reached the head of the waiting list. In addition, rental prices under this option would provide a clear signal to housing managers about the value of on-base housing to service members. With those price signals guiding investment decisions for on-base housing, the location, quality, and number of units would be more likely to reflect the preferences of military personnel than they do under the current system.

Perhaps most important, allowing private-sector housing to compete with on-base housing on a level playing field would, over the long run, enable the department to provide service members with the same quality of life at lower cost. Although presented here as an alternative to DoD's current housing system, the use of unsubsidized, market-driven rents for military housing might offer similar advantages regardless of whether the units were controlled directly by DoD, a quasi-governmental housing authority, or a public/private partnership.

DEF-36 REDUCE SUBSIDIES FOR MILITARY COMMISSARIES

Savings from the 1997 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	460	480	490	500	510	2,440
Outlays	350	440	470	490	510	2,260

The Department of Defense Commissary Agency (DeCA) operates on-base supermarkets, or commissaries, for the benefit of both current and retired service members and their dependents in the United States and overseas. Based on sales volume, DeCA is the nation's eighth largest supermarket chain.

The Congress provides DeCA with approximately $1 billion in annual appropriations to pay for the salaries of commissary employees and other operating costs. That subsidy allows commissaries to charge prices well below those charged by commercial supermarkets. CBO's midrange estimate suggests that commissary prices are on average 20 percent below commercial prices. DeCA, based on a 1995 price survey, estimates that commissary prices are typically 29 percent below commercial levels. Whatever its exact level, the difference between commissary and commercial prices creates a strong demand for continued access to commissaries. As a result, DoD continues to operate small, costly stores in U.S. locations where bases have been closed and relatively few active-duty personnel remain.

This option would raise commissary prices by 10 percent, making the commissaries more self-sufficient and reducing the need for appropriated subsidies. Despite the price increase, commissaries would continue to offer substantial savings. CBO's midrange estimate is that commissary prices would still be 12 percent below commercial levels. However, if DeCA's estimate of current savings is correct, the new prices would be 21 percent below commercial levels. That is only 2 percentage points less than the 23 percent savings reported by DeCA in 1991.

Over the long run, DoD savings from this option would be approximately $500 million annually. Those savings would permit the Congress to cut the commissary appropriation by about one-half. That estimate includes the cost of an $80 million increase in overseas cost-of-living allowances that higher prices in overseas commissaries would trigger.

This price increase would make commissaries a more cost-effective benefit for military personnel. Under the current system, the price that service members pay for commissary goods does not cover the costs that taxpayers incur in providing them. Subsidized prices encourage members to purchase goods even if the value they place on those purchases is less than the cost to taxpayers.

This option could also improve the welfare of families living overseas by expanding their shopping alternatives. The large price differential that exists between commissaries and local stores overseas can make local shopping appear unreasonably expensive, in effect trapping service members into shopping at small commissaries even in locations where the local economy offers large, modern supermarkets with a wide array of goods. Higher commissary prices--and a higher cost-of-living allowance to offset those prices--would give service members a wider array of affordable options.

The major disadvantage of this option is that it would force military members and retirees in the United States to pay higher prices at commissaries or to shop in commercial supermarkets. Service members in the United States, unlike those overseas, would not get an automatic offsetting increase in cash compensation.

Nonetheless, this option would offer significant savings while preserving much of the current commissary benefit for both active-duty and retired military personnel. Commissary prices would still be sig-

nificantly below commercial prices, and commissary benefits might continue to be regarded as an integral feature of the military way of life for both active-duty and retired personnel. The only commissary sales DoD would lose would be those that were clearly not cost-effective.

DEF-37 CONSOLIDATE THE MILITARY EXCHANGES AND INCLUDE THEM IN THE FEDERAL BUDGET

Savings from the 1997 Plan	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	520	530	540	560	580	2,730
Outlays	390	490	530	550	570	2,530

The Department of Defense's three military exchange systems (the Army and Air Force Exchange Service, the Navy Exchange Command, and the Marine Corps's system) operate a wide array of retail stores and consumer services for the benefit of active, reserve, and retired military personnel and their families. Although best known for their main retail stores (similar to J.C. Penney or Sears), the exchanges also provide convenience stores, liquor stores, gas stations, fast-food restaurants, flower shops, and pet-grooming salons. In 1995, the exchanges sold over $9 billion of goods and services and employed nearly 80,000 workers.

Although wholly owned by the federal government, the exchanges are nonappropriated fund (NAF) activities and do not appear in the federal budget. DoD spends the exchanges' net earnings without Congressional authorization or appropriation. In 1995, DoD's discretionary NAF income from exchanges and overseas slot machines (another large revenue producer) was approximately $450 million. By 1997, that amount is expected to rise to over $600 million as the exchanges recover from the effects of the drawdown and take control of all tobacco sales at military bases. The services use most of that discretionary NAF income to support their morale, welfare, and recreation (MWR) programs. Among the MWR programs that benefit from the income are so-called Category C programs (commercial-style programs such as golf courses, hotels, and clubs) as well as Category A and B programs (mission-supporting and community support activities such as libraries, gymnasiums, and child care centers).

Members of Congress have questioned some of the services' decisions to use NAF earnings in support of particular Category C projects. One response, which DoD used to defend both the purchase of a hotel in Disney World and the construction of a third golf course at Andrews Air Force Base, is that NAF dollars belong to service members, not taxpayers. That argument may be misleading. Although NAF dollars are not currently in the federal budget, they are legally federal resources. They might also be viewed as taxpayers' dollars from a practical perspective. Military exchanges are able to generate NAF earnings while charging below-market prices only because some of their costs are paid with appropriated funds and because they benefit from special tax exemptions. Moreover, the amount of appropriated funds necessary to attract and retain a high-quality force increases when DoD does not spend its NAF dollars wisely.

This option would consolidate the military exchanges and bring them, together with DoD's overseas slot machines, into the federal budget under a single DoD agency or government corporation. That entity would operate under the same personnel and acquisition rules that currently guide the exchanges as NAF activities. In the agency or corporation's enabling legislation, the Congress would authorize it to spend the money it receives from its customers to cover its operating costs on a revolving basis. The agency would also be authorized to borrow from the Treasury (at interest) for capital investment. It would require specific Congressional authorization, however, to spend its net earnings in support of DoD's MWR programs. CBO estimates that this option would save $390 million in outlays in 1998 and approximately $2.5 billion between 1998 and 2002.

Those savings would come from three sources. One source would be from consolidating the three exchanges' support functions into a single headquarters staff, one set of regional offices, one buying staff, one information system, and one distribution and warehousing system. CBO estimates that those savings would

amount to approximately $50 million annually. That figure is equal to roughly half of the central and overhead costs of the Navy and Marine Corps systems that would be integrated with the larger Army and Air Force Exchange Service.

This option would also provide savings by giving managers better visibility and control over their use of resources. Under this option, a single revolving-fund budget would pay for all of the operating costs of the exchanges, both those now paid with appropriated funds and those paid with nonappropriated funds. Under the current system, the appropriated funds used to support the exchanges (including funds for overseas transportation and utilities, providing services such as police and fire protection, and maintaining the exterior of buildings) do not appear in the exchanges' income and expense statements. As a result, the NAF managers who operate an overseas bakery, ice cream production line, and meat-processing line do not take into account the cost of transporting raw materials from the United States or their utility costs. Separating the appropriated funds from the nonappropriated funds may have encouraged the Army and Air Force Exchange Service to spend $40 million in 1995 transporting beverages bottled in the United States overseas rather than seek overseas bottlers.

Finally, DoD would save because the agency or corporation would use some of its receipts from patrons to reimburse DoD for the cost of any services that the department provided. That reimbursement would reduce the reported net earnings of the agency. The lower estimate of earnings, however, might more accurately reflect the difference between the agency's receipts from the public and its total expenses.

The Congress could use the savings created by that reimbursement (along with the remaining net earnings of the agency) to support the morale, welfare, and recreation activities that are currently supported by exchange earnings. In the past, however, the Congress has been reluctant to provide appropriated funds to support the commercial-style Category C MWR activities that currently receive much of the benefit from the earnings of the exchanges and slot machines. CBO's savings estimate assumes that the Congress would provide appropriated funds (or authorize expenditures of net earnings) to make up for any loss in nonappropriated funds to MWR activities in Categories A and B, but that it would not appropriate funds to cover Category C activities or their overhead costs.

CBO's savings estimate also assumes that the agency or corporation would borrow from the Treasury to meet its investment needs. In the long run, the need to pay interest costs would lead to more careful use of resources. In the short run, the requirement to finance investment with borrowed funds rather than retained earnings would contribute to budgetary savings.

In addition to providing savings, this option would make the treatment of exchanges consistent with the principles established by the 1967 President's Commission on Budget Concepts, thus providing a better picture of overall federal activity. Including the agency's activities in the federal budget would have no effect on federal outlays or the deficit in years when the agency's collections from patrons just balanced its expenditures. In years when expenditures exceeded receipts, net federal outlays would rise by the difference; in years when receipts exceeded expenditures, they would fall. Moreover, by eliminating the process that takes appropriated funds and funnels them through the exchanges to produce net NAF earnings, this approach would increase Congressional control over what are, in fact, expenditures of federal resources.

One disadvantage of this option is that consolidating the separate exchange systems could make it more difficult to tailor the exchanges at different bases to meet the needs of their specific patrons. The transition to a single organization might also temporarily disrupt some exchange operations as DoD moved warehouse operations, created integrated information systems, and reorganized headquarters and support functions.

In addition, at the same time that this option enhanced Congressional oversight and control of federal resources, it would put decisions about the level of federal resources to be spent on MWR activities--decisions that DoD currently handles internally--into the political arena. Although that could have a positive effect on the quality of life (for example, if dollars previously spent on golf courses were shifted toward what might be needs with a higher priority, such as improved barracks), it might also have a negative impact (for example, if the Congress did not provide appropriated funds to replace the NAF dollars previously used to support fitness centers).

DEF-38 REDUCE STATE DEPARTMENT FUNDING AND ELIMINATE MISCELLANEOUS FOREIGN AFFAIRS ACTIVITIES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	50	65	75	95	35	320
Outlays	45	60	70	90	45	310
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	105	185	265	355	365	1,275
Outlays	85	160	230	320	345	1,140

The Department of State, which employs about 19,500 full-time personnel in the United States and in foreign countries, promotes U.S. foreign policy interests abroad. Other, smaller agencies also conduct research and activities relating to foreign affairs.

The State Department will receive about $2.5 billion in 1997 to administer its foreign affairs programs. In the early 1980s, that portion of the State Department's budget was approximately $1.7 billion. Inflation was responsible for some of the increase, but the funding that was added to provide security for diplomats and to establish new posts in the republics of the former Soviet Union also contributed. Even when funding for added security and new posts is excluded, however, real growth from the 1980s through 1997 amounts to about 20 percent. The increases in funding mainly reflect growth in salaries and related expenses and in rental and acquisition costs of residences and office space. In addition, the State Department has used fees on machine-readable visas and other consular services to augment its consular affairs budget. In 1996, the State Department collected and retained an estimated $143 million in fees.

The State Department is not the only federally funded organization that works on foreign affairs activities. Smaller agencies such as the U.S. Institute of Peace, the Asia Foundation, the East/West Center, and the North/South Center perform functions that could be eliminated without directly affecting U.S. foreign policy. Those agencies, which have combined budgets totaling about $30 million annually, conduct research and work to build better relations between the United States and various foreign countries.

This option would reduce State Department funding from 1998 through 2002 by phasing in nominal cuts in appropriations. By 2001, State Department funding (excluding the cost of security improvements and new posts in the former Soviet Union) would return to its real level of the early 1980s. Compared with the 1997 funding level, this option would save $310 million over the 1998-2002 period--$160 million by reducing State Department funding and $150 million by eliminating the related functions of various other agencies dealing in foreign affairs. Compared with the 1997 funding level adjusted for inflation, this option would save about $1.1 billion over the five-year period.

The department could accommodate those cuts by readdressing its mission and implementing a policy of comprehensive change. Some of those changes might include eliminating or consolidating posts in less important areas of the world, reorganizing the State Department's bureaucracy, and reducing the number of senior foreign service officers, which some studies have suggested is too high given the size of the foreign service.

Opponents of this option would argue that more money--not less--will be needed to handle the new, complex issues that the United States now faces abroad. The current number of senior foreign service

officers may be needed to represent the United States in the post-Cold War world in which economic superpowers will compete. Finally, the smaller agencies dealing in foreign affairs might be viewed as providing valuable independent analysis of issues and improving the United States' understanding of, or relations with, foreign countries.

DEF-39 ELIMINATE OVERSEAS BROADCASTING

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	75	190	385	385	385	1,420
Outlays	45	160	350	380	385	1,320
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	90	215	425	440	455	1,625
Outlays	55	180	385	435	450	1,505

U.S. overseas broadcasting is provided by several entities. Radio Free Europe (RFE) and Radio Liberty (RL) broadcast country-specific news to Eastern Europe and the former Soviet Union, respectively. The Voice of America (VOA) oversees radio broadcasts that provide news and U.S.-related information to audiences worldwide. The United States Information Agency (USIA) oversees television broadcasting services similar to the radio broadcasts of VOA and also manages a broadcasting service to Cuba. In 1996, the Congress consolidated the appropriations for VOA, RFE/RL, and USIA's television and film service into the International Broadcasting Operations account. Funding for radio and television broadcasting to Cuba and for construction of broadcasting facilities was provided in separate appropriations.

This option would eliminate VOA and RFE/RL and would end broadcasting services to Cuba, all overseas construction of broadcast facilities, and U.S. overseas television broadcasting. When measured against the 1997 funding level, five-year savings would total $1.3 billion. Terminating International Broadcasting Operations, which has an operating budget of $325 million, would cost about $295 million in 1998 but would yield five-year savings of about $1 billion. Over the five-year period, ending broadcasts to Cuba would save about $105 million, and terminating construction of broadcast facilities, $135 million. Near-term savings for those programs would be reduced by large termination costs, such as severance pay for employees. Compared with the 1997 funding level adjusted for inflation, this option would save approximately $1.5 billion over the five-year period.

Proponents of terminating overseas broadcasting claim that RFE/RL and VOA are relics of the Cold War that are no longer necessary. RFE and RL continue to broadcast to countries of Eastern Europe and the former Soviet Union even though, after the fall of communism, those countries have ready access to world news. With the advent of satellite television broadcasting, most nations can receive world and U.S.-related news from private broadcasters, such as the Cable News Network (CNN). Some proponents also argue that the primary technology used by VOA and RFE/RL limits the effectiveness of U.S. overseas broadcasting; because shortwave radios are needed to receive most broadcasts, audiences are limited. Finally, foreigners may distrust the accuracy of broadcasts sponsored by the U.S. government.

Critics of this option would argue that the current level of broadcasting should continue or even increase. The process of change in Eastern Europe and the former Soviet Union needs nurturing, and U.S. broadcasting can assist in that process. In other parts of the world, many countries remain closed. Supporters of VOA and RFE/RL argue that shortwave radio broadcasts are the best way to reach people in closed countries because very few people own satellite dishes, which are needed to receive television broadcasts such as those by CNN. They note that VOA and RFE/RL are continuing to broadcast more programs over AM

and FM frequencies. Supporters also argue that broadcasting should be sharply increased to some countries such as China and North Korea. Further, they believe that television is a powerful communications tool and that private television networks cannot adequately communicate U.S. policy and viewpoints.

DEF-40 RECOVER THE FULL COST OF MILITARY EXPORTS

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	95	120	195	210	230	850

The United States now exports more military equipment and services than any other country, a position held by the former Soviet Union during the 1980s. Since the end of the Cold War, the international market for military equipment and services has fallen precipitously, by about 70 percent. In contrast, U.S. exports have fallen by less than 25 percent, from approximately $13 billion a year in the 1980s to between $9 billion and $10 billion in the mid-1990s. The Department of Defense expects that relatively strong performance to continue, with U.S. defense industries capturing between 50 percent and 60 percent of the global arms trade. Economic concerns rather than Cold War competition have now become the primary motivation for arms sales, and with the end of the Cold War, the need for the U.S. government to subsidize global alliances has greatly diminished. Indeed, Russia has terminated most of its grant agreements and now pursues arms exports as a means of earning hard currencies.

This option would reinstate a policy of full cost recovery to U.S. foreign military sales programs by reversing recent changes in U.S. laws and regulations that created the subsidies. If the government recovered the full cost of arms sales, its additional receipts would be $95 million in 1998 and $850 million over five years. That estimate assumes that the amount of new arms sales agreements will remain relatively low through the decade as importing countries focus on sustaining existing weapon systems. Subsidies are estimated to have little effect on such sales.

Specifically, this option would eliminate several different subsidies now provided for foreign arms sales. All sales would again be subject to charges for nonrecurring research, development, and production on licensed commercial exports of major defense equipment and for the use of U.S. government-supplied plant and production equipment. That would recoup some of the U.S. government's investment. In addition, the option would require that the administrative surcharge currently imposed on all arms sales include the full cost of civilian and military personnel who work on foreign military sales.

Proponents of subsidizing military exports argue that the exports forge important ties between the United States and foreign military leaders. They also contend that other countries' having U.S. equipment will facilitate joint operations involving U.S. and foreign forces. They argue that significant increases in the cost of military exports, which are also an important source of business and employment for defense industries, will adversely affect the U.S. defense industrial base. Advocates of arms sales claim that each billion dollars of exports supports 20,000 to 25,000 jobs in defense industries.

Opponents counter that concerns about the proliferation of weapons outweigh the benefits of protecting the U.S. defense industrial base. They argue that no economic studies have shown that demand for military equipment would be sensitive to the modest price increases proposed in the option. They contend that military exports can harm importing countries by contributing to destabilizing regional arms races, increasing the destructiveness and violence of regional wars, and draining resources away from civilian investment.

U.S. defense industries have significant advantages over their foreign competitors and thus should not need additional subsidies to attract sales. Because the U.S. defense procurement budget is nearly twice that of all Western European countries combined, U.S. industries can realize economies of scale not available to their competitors. The U.S. defense research and development budget is five times that of all Western European countries combined, which ensures that U.S. weapon

systems are and will remain technologically superior to those of other suppliers. The military and political ties with the United States associated with the sales are also an important benefit to many foreign countries. In times of crisis, no other country can offer the same military or logistical assistance as the United States.

DEF-41 REDUCE SECURITY ASSISTANCE

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	282	555	824	1,090	1,357	4,109
Outlays	176	373	646	921	1,192	3,308
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	332	673	1,020	1,380	1,754	5,159
Outlays	207	452	790	1,146	1,514	4,109

International security assistance consists primarily of aid from the Economic Support Fund (ESF) and the Foreign Military Financing (FMF) program. Two countries--Israel and Egypt--receive most of that funding. In 1979, Israel and Egypt signed the Camp David peace accords that formally ended 30 years of hostilities. As part of that process, the United States agreed to provide substantial amounts of aid to both countries to promote their economic, political, and military security. In 1997, funding for security assistance to Israel and Egypt totaled $5.2 billion. Assistance earmarked for them now accounts for 87 percent of discretionary funding for security assistance and 28 percent of all discretionary funding for international affairs. With that total being cut severely, it seems appropriate to have those two countries assume some of the burden of reductions in the international affairs budget.

This option would reduce economic and FMF support to both Israel and Egypt. It would set economic support for Israel, in return for its continued participation in the Camp David Accords, at the amount of its annual repayment of security assistance loans and guarantees. The Congress has consistently stated in appropriation law that Israel should receive sufficient funding to repay many of its debts to the U.S. government. By historical practice, U.S. assistance to Egypt has been tied politically to its assistance to Israel. Thus, the option would make proportionate reductions in Egypt's allocation. Relative to the 1997 funding level, the five-year savings in outlays from those reductions in economic support to Israel and Egypt would be $1.6 billion. Relative to the 1997 level adjusted for inflation, the savings would be $2.3 billion.

This option would also reduce the level of grants to Israel and Egypt for FMF assistance. Israel would receive $1.8 billion in grants in 1998. Beginning in 1999, $475 million in FMF grants to Israel would be phased out over a four-year period. Those reductions, plus proportionate reductions in Egypt's grants, would save $1.7 billion over five years compared with the 1997 funding level. With the 1997 level adjusted for inflation, the savings would be $1.8 billion.

Many people feel that Israel no longer needs the economic support it receives from the United States. That support helps to offset Israel's balance-of-payments problems, which stem mainly from a high trade deficit with Europe rather than with the United States. U.S. economic aid to Israel represents less than 2 percent of Israel's gross domestic product (GDP). Moreover, proponents of cutting aid would argue that Israel is a high-income economy by World Bank standards and thus should be able to weather these cuts.

According to some analysts, U.S. assistance to Egypt is not being spent wisely or efficiently. Critics note that high levels of appropriations have exceeded Egypt's ability to spend the funds, leading to the accumulation of large undisbursed balances, inefficient use of assistance, and delays in making the reforms needed to foster self-sustaining growth. Furthermore, many other countries and organizations contribute substantial

amounts of money to Egypt. Thus, some reductions in U.S. assistance may make sense.

Proponents of cutting military assistance to Israel and Egypt believe that those countries no longer need a high level of support. With the expanding peace process in the Middle East and Iraq's defeat in the Persian Gulf War, neither Israel nor Egypt faces a substantial military threat in the near future. After 15 years of U.S. arms sales and grants, Israel and Egypt are far better equipped militarily than any of their neighbors. Roughly one-quarter of Israel's grants for 1997, or the $475 million noted above, is designated for procuring defense articles, services, and research and development in Israel. That funding therefore results in further balance-of-payments support for Israel's trade deficit.

Furthermore, both Israel and Egypt have reduced the burden of defense on their respective economies. Israel now spends approximately 10 percent of its GDP on defense, down from 23 percent in the early 1980s. Similarly, the defense burden on Egypt's economy has declined from more than 7 percent of GDP in the mid-1980s to slightly more than 3 percent in the 1990s. Those declines may reflect both the economic growth in Israel and Egypt over the past 10 years and an improving security environment.

Supporters of current aid levels would argue that Israel and Egypt are the United States' closest allies in the Middle East. Cutting foreign assistance to them at this time could be interpreted by some people in the Middle East as a weakening of U.S. political support for either those two states or the Middle East peace process, especially given the assassination of Israeli Prime Minister Yitzak Rabin in November 1995. Furthermore, both Israel and Egypt face domestic and international threats from Islamic fundamentalists and states supporting terrorism, such as Iran. Many groups in the Arab world violently oppose both states for having started the peace process in 1979. Thus, supporters of maintaining current levels of assistance would argue that even though cuts may eventually be warranted, now is not the time to make them. A weakening of U.S. support might jeopardize Israel's security and Egypt's stability.

DEF-42 ELIMINATE THE EXPORT-IMPORT BANK, OVERSEAS PRIVATE INVESTMENT CORPORATION, AND TRADE AND DEVELOPMENT AGENCY

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	830	820	810	805	800	4,065
Outlays	85	215	310	400	480	1,490
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	855	870	890	910	930	4,455
Outlays	90	225	335	445	540	1,635

The Export-Import Bank (Eximbank), the Overseas Private Investment Corporation (OPIC), and the Trade and Development Agency (TDA) promote U.S. exports and overseas investment by providing a range of services to U.S. companies wishing to do business abroad. Eximbank and OPIC provide subsidized direct loans, guarantees of private lending, export credit insurance, and political risk insurance; TDA funds feasibility studies, orientation visits, training grants, and other forms of technical assistance. Appropriations in 1997 for Eximbank, OPIC, and TDA are $715 million, $104 million, and $45 million, respectively.

These agencies are only three of several U.S. government agencies that have activities related to promoting trade and exports. According to the 1996 annual report of the Trade Promotion Coordinating Committee, exports supported by OPIC, Eximbank, and TDA accounted for less than 4 percent of total U.S. exports in 1995. In that year, obligations for those agencies totaled over $0.9 billion. The committee warns that its data might include double-counting, thereby overstating exports supported by those agencies.

This option would eliminate the TDA and the subsidy appropriations for Eximbank and OPIC. Eximbank and OPIC would not be able to make any new finance or insurance commitments but would continue to service their existing portfolios. This option would save $85 million in 1998 and reduce outlays by $1.5 billion through 2002 relative to the 1997 funding level. Compared with the 1997 funding level adjusted for inflation, savings would be $90 million in 1998 and $1.6 billion through 2002.

Supporters of promoting exports argue that those programs play an important role in helping U.S. businesses, especially small businesses, understand and penetrate overseas markets. The programs level the playing field for U.S. exports by offsetting the subsidies that foreign governments provide to their exporters, thereby creating jobs and promoting U.S. exports. By promoting U.S. investment in areas such as Russia and the states of the former Soviet Union, those programs might also serve a foreign policy objective.

Critics dispute claims that promoting exports creates jobs in the United States. They assert that by subsidizing exports, the government merely displaces private investment flows and redistributes benefits that are best left to more efficient and less distorted market forces. Subsidizing exports runs contrary to the free-market policies that the United States advocates. OPIC and Eximbank's finance programs might encourage adverse selection; firms that seek financing are the ones least likely to be able to raise funds on their own merit. Similarly, the insurance programs of those agencies may encourage moral hazard--that is, firms might invest in riskier projects than they would if their own funds were at stake or they did not have insurance. Finally, critics argue that those programs encourage highly risky projects in vulnerable areas. Although emerging markets like South Korea, Brazil, Mexico, the Association of Southeast Asian Nations, and Poland

provide the best potential markets for U.S. exports, they are also somewhat risky; firms operating in those markets face considerable political, currency, and business risks. Furthermore, OPIC's mandate restricts its operations to economies that are less developed and riskier than those emerging markets.

DEF-43 CEASE SUPPORTING MULTILATERAL DEVELOPMENT BANKS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	484	774	845	913	921	3,937
Outlays	43	168	300	449	609	1,568
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	507	824	919	1,014	1,051	4,315
Outlays	45	178	320	483	663	1,690

First established to finance the reconstruction of Europe after World War II, the World Bank and its regional counterparts--the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, and the European Bank for Reconstruction and Development--are now important sources of financing for developing countries. Those multilateral development banks are owned by 180 member countries and have collective assets of between $263 billion and $402 billion (the valuation depends on the fair market value of loans extended on highly concessional terms). The banks have grown over the years through periodic increases in their stock. Member nations participate in the stock increase by directly purchasing the stock or by promising to back the banks' debts (termed callable-capital stock). The banks finance much of their lending activities by borrowing in private credit markets. In addition, member countries contribute funds that the banks lend to low-income countries on highly concessional terms.

Under this option, the United States would continue to be a member and a stockholder in the banks but would stop supplying new capital. The federal government would fulfill its currently authorized commitments but would not agree to new stock purchases or additional contributions. Adopting this approach would save $43 million in 1998 and $1.6 billion over the next five years compared with the 1997 funding level. Savings would be $45 million in 1998 and $1.7 billion over the next five years compared with the 1997 funding level adjusted for inflation.

Critics of the banks' operations would be in favor of this option. They believe that the multilateral banks have harmed the economies and people they were supposed to help, that some of the projects they have funded have damaged the environment, and that the banks' managers are out of touch with the needs of their client countries.

Critics claim that the multilateral banks are more interested in the process of generating loans than in whether the loans are well invested. They argue that the banks have incentive systems that create a preoccupation with getting loans approved. In some cases, loan officers add features to their proposals that may enhance the prospect of obtaining the board's approval but that complicate implementation and endanger the success of the projects. Borrowing to finance poor investments has contributed to the "debt overhang," or insolvency, of severely indebted low-income countries. After five years of internal reforms, the World Bank reports that a third of its projects are still unsatisfactory at completion. Limiting U.S. participation in new lending might cause the banks to pay more attention to the success of lending activities and efficient management.

Some critics also claim that the banks' lending harms the economies of developing countries. They believe that large amounts of aid could raise the recipient country's exchange rate and reduce the country's need to earn foreign exchange through exports. An overvalued exchange rate increases the relative costs of domestic products, thereby reducing their competitiveness in world markets. According to that argument, poor

investments by the multilateral banks not only waste money but also drag down the entire economy of the recipient country. Critics also maintain that the constant infusion of concessional lending weakens financial discipline and depresses domestic saving and private investment, thereby destroying the incentives that foster sound business practices.

Finally, environmental groups charge that the large-scale projects funded by the banks too often damage the environment and marginalize indigenous peoples. They point to examples such as the Polonoreste plan in northern Brazil, where new settlers have burned thousands of square miles of tropical forests to produce cropland and grazing land for large cattle ranchers. The banks have financed dams for irrigation in India that have displaced hundreds of thousands of poor farmers and tribal peoples without improving their standard of living. Environmental groups claim that in certain instances, the dams have inundated entire ecosystems.

Supporters of the banks argue that the banks are the most effective instrument in promoting policy reform in developing countries and in countries undergoing the transformation to democracies with a free-market orien-tation. The banks promote U.S. interests around the world on a scale that the United States, acting alone, could not afford. For example, the banks have undertaken important initiatives such as promoting reform in Eastern Europe and the republics of the former Soviet Union, reducing poverty in Africa and Asia, and fostering development in the West Bank and Gaza. If the United States stopped contributing to the banks, its ability to shape their policies and operations would be weakened. Supporters might also note that the harmful effects on the indigenous population, the environment, and the economy were common to all past development efforts, not just the banks' projects, and that the banks have adopted operational policies to reduce the adverse environmental and social impact of projects that they finance.

The banks' advocates might also point out that developing countries are the most rapidly expanding export market and that the financing the banks provide is a particularly important source of support in expanding U.S. exports to those countries. They might argue further that the poor performance of the banks' portfolios is exaggerated: development is a risky business, and if the banks were making only safe loans, they would not be serving their main function of taking risks that profit-oriented investors shun.

Chapter Three

Domestic Discretionary Spending

Domestic discretionary programs include all federal programs controlled through annual appropriations except those covering defense or international affairs. Appropriations for domestic discretionary programs fund such areas as science and space, transportation, energy, agriculture, environmental protection, housing, education and training, community development, medical research, and law enforcement. In all, spending for domestic discretionary programs is spread over 15 functional areas of the budget (see Box 3-1).

The diversity of the category is further illustrated by the distribution of spending for discretionary programs between different (and overlapping) types of activities. About a third of domestic discretionary spending is devoted to investments in research and development (R&D) and physical infrastructure. About a quarter funds compensation for federal employees. Another third is directed to state and local governments in the form of grants. Funds from the domestic discretionary pool constitute the bulk of the money spent by the Departments of Justice, Treasury, and the Interior (among others), as well as by independent agencies such as the National Aeronautics and Space Administration, the Environmental Protection Agency, and the National Science Foundation. Annual appropriations for many domestic programs fund highly visible parts of the government that have direct contact with the public--from ranger stations in the national parks to Social Security, passport, and Internal Revenue Service offices, to name a few. Because those activities are not likely to be discontinued, the term "discretionary" applies to them in only a limited sense.

Recent Developments and Trends

Outlays for domestic discretionary programs are estimated to total $261 billion in 1997, a $13 billion increase from the previous year. That level of spending accounts for about 16 percent of federal outlays and just under 48 percent of total discretionary spending. Outlays in each of three budget functions--transportation (400); education, training, employment, and social services (500); and income security (600)--will exceed $35 billion in 1997. Taken together, they account for about 45 percent of total spending for domestic discretionary programs (see Table 3-1). The 1997 level of domestic discretionary spending represents about 3.3 percent of gross domestic product, virtually unchanged from the 1996 percentage (see Figure 3-1).

Since 1991, the caps created by the Budget Enforcement Act of 1990 have imposed a near freeze on total discretionary outlays.[1] However, that freeze has been unevenly applied among the three categories of discretionary outlays (defense, international, and domestic). Outlays for domestic programs increased from $213 billion in 1992 to $261 billion 1997, while outlays for defense and international programs fell from $322 billion to $286 billion. Over that period, defense spending dropped by roughly one-third in real (inflation-adjusted) terms, mainly because of major re-

1. The discretionary spending limits for the Violent Crime Reduction Trust Fund are included in the domestic discretionary total for the purposes of this discussion.

Box 3-1.
Categories of Domestic Discretionary Spending

250 General Science, Space, and Technology--Research supported by the National Science Foundation, the bulk of the spending by the National Aeronautics and Space Administration (NASA), and the general science research supported by the Department of Energy.

270 Energy--Domestic energy programs of the Department of Energy and activities of the Rural Utilities Service and the Nuclear Regulatory Commission, including programs to increase the supply of energy, encourage energy conservation, provide an emergency stockpile of energy, and regulate energy production.

300 Natural Resources and Environment--Programs administered by the Army Corps of Engineers, the Department of Agriculture, the Department of the Interior, the Environmental Protection Agency, and the Department of Commerce's National Oceanic and Atmospheric Administration, among others, for water resources, conservation and land management, pollution control, and other natural resources programs.

350 Agriculture--Programs administered by the Department of Agriculture to promote economic stability in agriculture and increase agricultural output. Farm income stabilization--loans, subsidies, and other payments to farmers--and agricultural research are funded under this budget function.

370 Commerce and Housing Credit--Funding for the regulation and promotion of commerce and the housing credit and deposit insurance industries. Also included in this category are subsidies to the Postal Service, programs providing loans and other aid to small businesses, and support for the government's efforts to gather and disseminate economic and demographic data.

400 Transportation--Most of the Department of Transportation's programs and NASA's support for aeronautical research, including funding to aid and regulate ground, air, and water transportation. Among the prominent programs supported under this function are grants to states for highways and airports and federal subsidies to Amtrak.

450 Community and Regional Development--Programs that support the development of physical and financial infrastructure intended to promote viable community economies, including activities of the Department of Commerce and the Department of Housing and Urban Development. This function also includes expenditures to help communities and families recover from natural disasters and spending for the rural development activities of the Department of Agriculture, the Bureau of Indian Affairs, and other agencies.

500 Education, Training, Employment, and Social Services--Funding for a diverse group of education and training programs extending from the preschool level (such as the Head Start program) to elementary and secondary education (such as grants to states) to postsecondary education and vocational training. Most of the programs included in this category are administered by the Departments of Labor and Education.

550 Health--Research (in the form of grants, largely to universities) supported by the Department of Health and Human Services through the National Institutes of Health, and programs funded by several different federal agencies to promote food and drug safety, consumer product safety, and occupational safety.

570 Medicare--The administrative expenses of the program, which are classified as discretionary. (Medicare provides health care services to people age 65 and older and to disabled beneficiaries.)

600 Income Security--Housing assistance administered by the Department of Housing and Urban Development and other major discretionary programs, including assistance to needy individuals for food and energy.

650 Social Security--Funding for the cost of administering the federal Old-Age, Survivors, and Disability Insurance Trust Funds.

700 Veterans Benefits and Services--Funding for veterans' hospitals and for building veterans' health care facilities.

750 Administration of Justice--Programs that provide judicial services, law enforcement, and prison operation. The Federal Bureau of Investigation, the Customs Service, the Drug Enforcement Administration, and the federal court system are all supported under this function.

800 General Government--Funding for the central management and policy responsibilities of both the legislative and executive branches of the federal government. The bulk of the expenditures in this category cover legislative functions and central fiscal operations, including those of the General Services Administration and the Internal Revenue Service.

SOURCE: General Accounting Office, *A Glossary of Terms Used in the Federal Budget Process,* GAO/AFMD-2.1.1 (January 1993), pp. 103-126.

ductions inthe number of people in the armed forces--from about 2 million in the early 1990s to 1.5 million in 1996--and the postponement of new weapons purchases. The size of those reductions could make further cuts in defense spending difficult. Consequently, the domestic side of the budget may have to bear more of the burden if discretionary spending is reduced in the future.

To measure the size of potential cuts, lawmakers need to know the level of projected spending without cuts. But the basis for projecting discretionary spending is ambiguous. With revenues and mandatory spending, which are generally governed by permanent laws, the Congressional Budget Office's baseline projections simply assume that current law continues without change. However, because discretionary spending is governed by annual appropriation acts, the current-law concept does not provide a clear basis for projecting future spending. As a result, CBO prepares two sets of projections of discretionary spending. For this year, both sets begin with the level of discretionary spending in 1998 set by statutory caps. In the first set of projections, CBO assumes that appropriations will be adjusted each year after 1998 to account for inflation. In the second set, CBO assumes that spending will be frozen in dollar terms at the 1998 level throughout the projection period.

Either set of projections can be used as a starting point to craft a deficit reduction plan. Using an inflation-adjusted starting point means that more savings will be needed to reach budgetary balance by 2002. Starting from a frozen level of discretionary spending, by contrast, means assuming a steady decline in the real resources devoted to discretionary programs. Under current projections, that decline would amount to 14 percent by 2002.

With any level of discretionary spending, priorities have to be assigned not only between defense and nondefense spending but also within the domestic discretionary category. Spending cuts in one area may be needed to allow increases in another area. The options

Table 3-1.
Budget Authority and Outlays for Domestic Discretionary Programs, by Budget Function, Fiscal Year 1997
(In billions of dollars)

Budget Function	Budget Authority	Outlays
General Science, Space, and Technology (250)	16.6	16.7
Energy (270)	4.3	4.9
Natural Resources and Environment (300)	21.6	21.9
Agriculture (350)	4.0	4.0
Commerce and Housing Credit (370)	3.0	3.1
Transportation (400)	14.4	36.9
Community and Regional Development (450)	9.4	11.0
Education, Training, Employment, and Social Services (500)	42.4	39.7
Health (550)	25.0	23.8
Medicare (570)	3.0	3.2
Income Security (600)	26.1	40.7
Social Security (650)	0	3.5
Veterans Benefits and Services (700)	19.0	20.3
Administration of Justice (750)	22.8	19.6
General Government (800)	11.8	11.7
Total	223.3	261.1

SOURCE: Congressional Budget Office.

to reduce domestic discretionary spending presented in this chapter focus primarily on the program level. They can be used to provide the necessary detail to hold total domestic discretionary spending to the levels specified in plans to balance the budget by 2002 while allowing for related program increases. In keeping with its mandate to provide objective, impartial analysis, CBO does not recommend or endorse any of these specific options to reduce domestic discretionary spending.

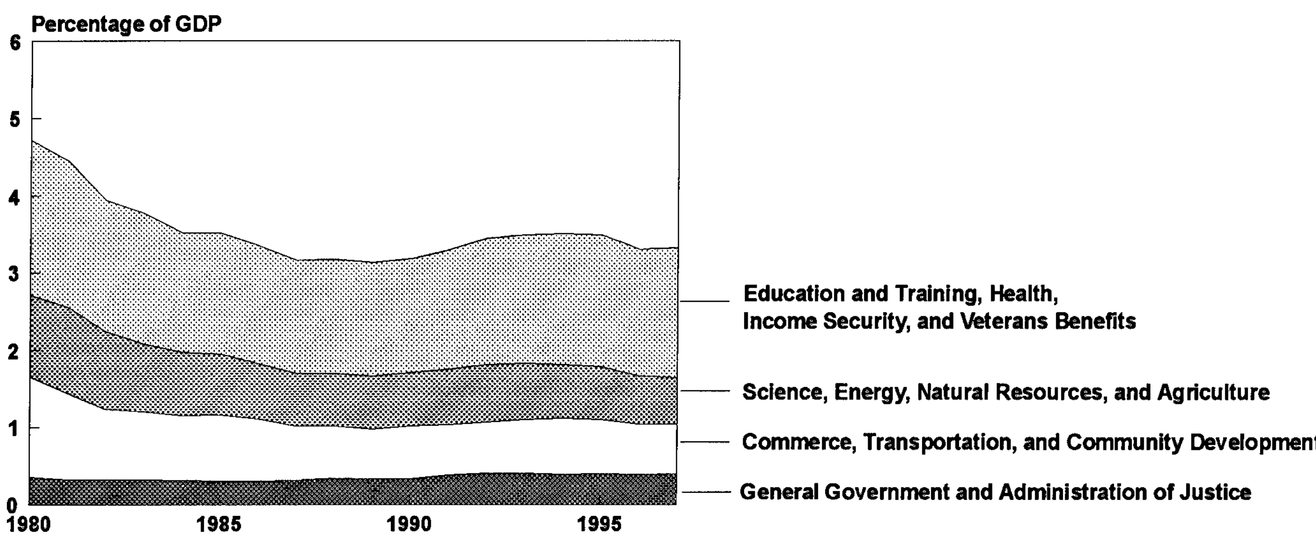
Rationales For and Against Spending Reductions

Attempts to balance the budget by 2002 will most likely increase the vulnerability of domestic discretionary programs to budget cuts. But the criteria for evaluating domestic discretionary spending, and the arguments for and against maintaining current programs and spending, have not changed.

Three general rationales for cutting federal spending are frequently cited in the domestic discretionary options presented here. The first is that federal outlays could be reduced when programs are found to be ineffective or inefficient in meeting their objectives. For instance, the argument that past spending has not been effective in achieving program goals is offered to support DOM-39, an option that would eliminate or reduce expenditures on education for disadvantaged students. Second, federal spending could be scaled back for programs that have accomplished their original mission, a point made in the case for eliminating the credit subsidies provided by the Rural Utilities Service (see DOM-09). Third, federal spending could be pared down by eliminating programs that benefit localities but do not deliver benefits to the wider public. As an example, the argument for DOM-29, an option to end the Essential Air Service program, asserts that programs that generate primarily local benefits ought to be funded locally.

In considering domestic discretionary programs, it is reasonable to ask, "Is this an appropriate activity for the federal government?" If the answer is no, the activity should be eliminated or scaled back. In that context, ideas about reinventing or privatizing the activities of federal programs clearly apply in reexamining domestic discretionary spending. Federal funding of programs

Figure 3-1.
Domestic Discretionary Spending as a Share of GDP



SOURCE: Congressional Budget Office.

and activities that produce benefits that could be secured by private investors should also be carefully scrutinized. DOM-30, an option to eliminate applied R&D support for the producers of commercial aircraft, illustrates the case to be made for cutting a program when the federal government pays for research that produces benefits that could, for the most part, be captured by directly affected private businesses making comparable investments.

The arguments for specific spending cuts are frequently countered by various defenses of current programs and expenditures. The supporters of activities that are criticized as outmoded, ineffective, or unlikely to produce benefits large enough to justify their costs sometimes simply reject those characterizations. (For example, advocates of continued spending for the international space station, which is discussed in DOM-01, argue that the benefits from the facility far exceed its costs.)

In other cases, advocates of spending that directly benefits a specific area, group, or industry contend that the benefits also accrue indirectly to the nation at large. According to those proponents, spending that supports a specific industry--such as the R&D spending questioned in DOM-05 and DOM-07--may, from society's point of view, compensate for inadequate market signals that would lead private investors to spend too little on such activities. Similarly, supporters of programs that raise health, education, or housing standards for a particular locality or group frequently claim that the benefits reach more people than just the direct recipients of funds. However, cuts in those programs might fall most heavily on recipients who have limited ability to adjust--such as poor, elderly, or disabled people. In those cases, the appropriateness of the federal government's role is as likely to be offered as an argument for an expenditure as against it.

Discussions between the advocates and opponents of an option to reduce the deficit are frequently conducted in the language of cost-benefit analysis. Yet the outcome of such analysis is unlikely to point definitively to one position or the other. The reason is that the benefits associated with government investments are sometimes uncertain and, more often, difficult to measure. Likewise, the cost of some government activities is hard to estimate. Those uncertainties give latitude to both advocates and opponents of particular options.

Process and Presentation

Because all of the options in this chapter would affect discretionary spending, achieving the budgetary savings they offer would require legislation in the form of appropriation acts. In some cases, however, the options involve changing the laws that authorize programs as well as cutting the amounts appropriated for them. Options that propose changes in authorizing legislation would alter the goals of a program or the methods of achieving them. One example is DOM-14, which would eliminate the Superfund program. The effect of the program change combined with reduced appropriations would be different from the effect of reduced appropriations alone.

The text accompanying each option describes its programmatic changes and their effects, as well as arguments for and against the changes. For most of the options in this chapter, the estimated savings are presented as reductions from both the 1997 funding level held constant through 2002 and the 1997 funding level adjusted for inflation over that period. An exception is DOM-63, an option to reduce the number of political appointees, in which spending cuts are calculated from CBO projections that include assumptions about expected employment levels and scheduled adjustments for inflation. Other exceptions are noted in the individual options as necessary.

When constructing a deficit reduction plan, care should be taken to match estimates of savings with the correct corresponding overall budget projection--that is, the total projection for all spending figured from either the adjusted or unadjusted 1997 level. For example, subtracting savings calculated against an inflation-adjusted baseline from a projection of overall spending that freezes discretionary spending at the 1997 level would overstate those savings, because the frozen level has not taken inflation into account to begin with.

DOM-01 CANCEL THE INTERNATIONAL SPACE STATION PROGRAM

	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
	From the 1997 Funding Level					
Budget Authority	1,449	2,149	2,149	2,149	2,149	10,045
Outlays	947	1,884	2,136	2,148	2,149	9,264
	From the 1997 Funding Level Adjusted for Inflation					
Budget Authority	1,503	2,263	2,323	2,385	2,450	10,924
Outlays	982	1,976	2,289	2,362	2,426	10,035

Canceling the international space station program would reduce outlays by $947 million in 1998 and by $9.3 billion over the 1998-2002 period measured against the 1997 funding level. Measured against the 1997 funding level adjusted for inflation, savings would be $982 million in 1998 and $10.0 billion from 1998 through 2002. Both sets of estimates assume termination costs of about $700 million in 1998.

The international space station program continues to make progress toward a 1998 launch of the first piece of hardware necessary to build the station. But over the past year, questions about the program's ultimate content, cost, and schedule that seemed answered by a 1993 overhaul have reemerged. Problems in the foreign part of the program have caused the National Aeronautics and Space Administration (NASA) to push back the expected completion date of the space station from June 2002 to late that year or early in 2003.

In addition, fears that Russia would not fulfill its commitments under the current plan appear to have been justified. Russian contractors will apparently produce pieces of the space station that are paid for by NASA or U.S. contractors. But the Russian government has so far failed to meet its commitment to finance and build a major part of the station called the service module, which would control the facility in orbit and provide crew quarters and life-support systems during the several years the station was being assembled in space. Other components of the space station that the Russian government is supposed to fund under the current plan will be late or may not be produced at all. Because the service module in particular is so essential, NASA will be forced to accept costly delays, provide an interim substitute, and find and pay for a long-term solution.

Despite those drawbacks, significant progress toward the launch, deployment, and operation of the space station weakens the case for canceling it on the basis of the uncertainty and unpredictability that have at times characterized the effort. But fundamental arguments against retaining the program are unchanged. NASA's progress toward completion and its sunk costs of $17.0 billion notwithstanding, the opponents of continuing the program question whether its future benefits are sufficiently large to justify the costs of completing and operating the facility. By the most optimistic reckoning, the international space station program will require an additional $9 billion through its development phase, which ends in 2002 or 2003, and another $13 billion for operating costs through 2012.

In support of their position, critics cite the general lack of enthusiasm for the space station among individual scientists and scientific societies. The program's opponents also note that the costs of the program have continually increased, although its capabilities and scope of activities have decreased. Moreover, opponents hold that under current budgetary conditions, any overruns that occurred would be paid for through additional cuts in NASA's science, technology, and aeronautical activities--areas already projected to receive less funding through 2002. Finally, critics point to the uncertainty surrounding the costs of operating and sup-

porting the facility once it has been developed and launched. On that score, opponents are skeptical of NASA's assurance that the station's operating costs will be low, noting that the agency made similar claims about the space shuttle that proved overly optimistic.

Advocates of continued spending for the space station program emphasize its positive effects on employment in the aerospace industry. Supporters also argue that Russia's participation has strengthened the foreign policy reason for continuing the program. They assert that drawing Russia, and particularly its aerospace industry, into a cooperative venture will help to stabilize the Russian economy and provide incentives for Russia to adhere to international agreements concerning the spread of missile technology. Supporters of the space station further note the long-standing arguments about the value of the project as a laboratory in orbit with unknown but positive scientific potential and as a test bed to learn how people in space live and work, in anticipation of future piloted exploration of the solar system. Advocates point out as well that the project's cancellation would force the United States to renege on agreements signed with European nations, Japan, and Canada. That withdrawal could hurt the prospects for future international cooperative agreements on space, science, and other areas of mutual interest.

DOM-02 CANCEL NASA'S EARTH OBSERVATION SYSTEM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	0	51	103	411	565	1,130
Outlays	0	21	67	220	441	749
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	26	106	187	525	711	1,555
Outlays	10	56	130	313	564	1,073

The Earth Observing System (EOS) is the most significant part of the National Aeronautics and Space Administration's (NASA's) Mission to Planet Earth program. The current plan for EOS envisions a series of satellites that would observe Earth over 15 or 20 years and a massive data information system that would make the data those satellites gather available to the scientific community on an integrated and sustainable basis. Funding only the satellites slated for launch by 2000 would reduce spending for the program by $749 million from 1999 through 2002 compared with the 1997 funding level. Compared with the 1997 level adjusted for inflation, savings would total $10 million in 1998 and $1.1 billion through 2002. Those estimates assume that NASA will launch and operate those satellites that are fully or substantially complete and will gather and analyze the data they provide.

EOS is part of a broader national initiative: the Global Change Research Program. It represents the United States' contribution to an international effort to improve knowledge about the natural and anthropogenic processes and forces that influence global climate over the long term. Specifically, the research program focuses on global warming, ozone depletion, changes in biodiversity, forest distribution, and desertification. Its objectives also include improving the accuracy of long-term weather forecasts and the ability to anticipate natural disasters such as floods. EOS will be the primary eyes, ears, and nervous system of the program's 15-year effort, gathering data by satellite and making it available to researchers through a sophisticated information storage and retrieval system.

The EOS program has gone through several planning exercises that have reduced its scope and cost. When the program began in 1989, its design consisted primarily of two large spacecraft in polar orbit carrying 30 instruments at a projected cost of $17 billion through 2000. A 1992 restructuring plan reduced the cost to about $11 billion by breaking up the large spacecraft, cutting the number of instruments, and stretching out the program's life. Another restructuring in 1993 further reduced the cost of the program to $8 billion for the 1990s. Marginal adjustments in 1994, known as a "rebaselining," lowered estimated costs to $7.2 billion. Additional adjustments in 1995 have shaved another $400 million from the plan, decreasing the estimated cost of the program through 2000 to $6.8 billion. A considerable part of the cost savings since 1993 were accomplished by increasing the role of other countries in the program.

This option would go farther than previous reductions in the scope and cost of the EOS plan. It would terminate the program as now planned but try to capitalize on the investments NASA has made in those satellites and data systems that would be operational in the next few years under the current plan. Thus, the estimated savings would still allow for the launch, operation, and associated research and data systems for the first satellites in the "AM" and "PM" series, as well as for several smaller satellites being launched by 2000. This option would have the effect of shortening the period of observations from those systems from 15 years to five years. If adopted, it would also involve forgoing the data that would be generated by the "Chemistry"

series and other later projects. The estimate allows for continued funding of Landsat 7 and the development of its replacement later in the next century.

The primary argument for canceling all but those parts of EOS holds that the expected return from the project is not large enough to justify its costs. Likewise, some supporters of cancellation would argue that even though EOS may make a positive scientific contribution, alternative investments (such as the space station or research by the Department of Energy) or spending for activities that provide current benefits would produce a greater return. The prospect of a flat budget for NASA and for domestic discretionary programs as a whole will force lawmakers to choose between efforts that are likely to produce benefits but that cannot all be afforded within planned budgets. Another argument for canceling EOS now is that improved satellite technology will decrease the cost of meeting the program's goals in the future, so the effort should be set aside until those technologies are developed. However, the EOS program is itself one of the factors driving lower-cost satellite technology.

Opponents of cancellation reject the notion that EOS will not produce a sufficient return to justify its cost, budgetary limitations notwithstanding. They note that the scientific community is largely supportive of the program and that it will ultimately provide information that policymakers will need to assess the prospects for global climate change and respond appropriately. Although operating many of the EOS satellites for five years could advance knowledge of Earth systems, the observations might not be long enough to validate trends for scientific or public policy purposes. In addition, because EOS is integrated with the global change research programs of other nations, adopting this option (or virtually any other that would noticeably decrease spending) could well force the United States to renegotiate and might call into question its reliability as a partner in large-scale scientific ventures.

DOM-03 ELIMINATE THE EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	81	81	81	81	81	405
Outlays	16	53	73	78	81	301
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	83	86	88	91	93	441
Outlays	17	55	77	84	90	323

The Experimental Program to Stimulate Competitive Research (EPSCoR) is a partnership between states and several research-oriented federal agencies, primarily the National Science Foundation (NSF) but also the Department of Defense, Department of Agriculture, Department of Energy, National Aeronautics and Space Administration, and others. Currently, those agencies spend more than $80 million on the federal portion of EPSCoR. Ending that federal contribution would save $16 million in 1998 and $301 million over the 1998-2002 period relative to the 1997 spending level. Relative to the 1997 level adjusted for inflation, the option would save $17 million in 1998 and $323 million through 2002.

EPSCoR was created in response to a concentrated distribution among the states of federal research and development (R&D) funding--a large number of states receive very little of the funding. EPSCoR was designed to encourage more investment by states in science and technology. The joint federal/state program helps the research enterprise in participating states grow in three ways: it increases the competitiveness of local research institutions in attracting external research support; it fosters the transfer of knowledge; and it improves the skills and effectiveness of scientists and engineers in those states.

Eighteen states and the Commonwealth of Puerto Rico currently take part in EPSCoR. Between 1980 and 1994, the NSF provided roughly $120 million to more than 60 colleges, universities, and laboratories that had not received significant federal R&D funding in the past. State governments, local industry, and other nonfederal sources provided an additional $300 million to those institutions. The entire effort has supported 2,000 scientists and engineers.

Opponents of EPSCoR contend that the nation must make optimal use of its limited research dollars. That principle would argue for supporting researchers whose proposals are judged superior through a process of peer review, without regard to geographical distribution. Furthermore, critics doubt whether newcomers to the research enterprise can sustain a top-level effort, which requires substantial ongoing investments by the states and regional institutions. Even with matching funds from the states and other nonfederal organizations, novice research institutions might find it difficult to succeed.

Critics also argue that EPSCoR was supposed to be an experimental program, not a permanent source of R&D support for selected states. They note that after nearly 15 years of EPSCoR support, the program's recipients continue to attract only about 7 percent of the federal funding for academic R&D. Opponents point to the corresponding lack of improvement in state shares of such funding: participating states that began the 1980s in the bottom half of the national rankings were still in the bottom half in 1993.

Advocates maintain that EPSCoR promotes a more equitable geographic distribution of the nation's science and technology base. They assert that state policymakers invest more in R&D than they would without

EPSCoR's incentives, and those investments promote equity in higher education by giving students in those states the research experience and training necessary for careers in scientific fields. Proponents also contend that the program fosters technology-related industries in the states by involving local firms in the selection of research topics. Supporters note that 15 of the EPSCoR states experienced above-average growth in federal funding for academic R&D over the 1980-1993 period. They claim that the EPSCoR states have improved their rankings in their chosen "niche" fields, even if such changes are not apparent in the overall statistics. They argue as well that the quality of EPSCoR-funded research is on a par with other federally funded R&D because awards are based on merit reviews.

DOM-04 REDUCE THE DEPARTMENT OF ENERGY'S BASIC RESEARCH PROGRAMS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	608	608	608	608	608	3,040
Outlays	299	536	608	608	608	2,659
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	670	738	807	878	951	4,044
Outlays	329	624	764	833	905	3,455

For 1997, the Congress has provided the Department of Energy (DOE) with $2.4 billion for basic research in various fields. Four program areas account for the bulk of that funding: general science ($996 million), fusion ($226 million), basic energy science ($631 million), and biological and environmental research ($378 million). The studies that those programs fund are directed toward fundamental understanding of matter and energy and their use--or, in the case of fusion, the development of an alternative source of energy. Spending in those areas supports the construction and operation of large, unique scientific instruments such as nuclear accelerators and research reactors, which are used by scientists in many different fields.

Reducing that research by 25 percent and then freezing it at that level would save $299 million in 1998 and $2.7 billion over the 1998-2002 period relative to the 1997 spending level. Relative to the 1997 level adjusted for inflation, those cuts would save $329 million in 1998 and $3.5 billion through 2002.

Throughout the postwar era, U.S. policymakers have agreed that supporting basic research is an important function of government in modern industrialized economies. No individual firm can capture all or even most of the benefits of basic research; consequently, the market, left to its own devices, would probably invest less in basic research than is best for society. Those premises have led to general agreement that the federal government should provide support for basic research. However, that principle does not tell policymakers how much support basic research should receive. Moreover, when budget reductions become necessary, even functions of government that are generally conceded to be worth supporting may have to be cut.

Proponents of cuts in DOE's programs of basic research argue that administrative efficiencies could be exploited to reduce costs without substantially lessening the amount of research being done. The final report in June 1995 of the Task Force on Strategic Energy Research and Development of the Secretary of Energy's Advisory Board found that "significant reductions in energy R&D costs can be achieved--without reducing the commitment to research--through streamlining administration." On that basis alone, the task force recommended a 15 percent cut in energy R&D costs as an appropriate target.

Other proponents of cuts point to the findings of a 1995 National Academy of Sciences panel. The panel recommended cutting back research performed at DOE (and other national) laboratories, arguing that the mechanisms by which knowledge moves out of the labs and into the commercial world are less reliable than those in academia. Specifically, research at universities is embodied in its graduating students, many of whom find jobs in industry or other nonacademic settings and thus disseminate knowledge rapidly through the economy. By contrast, the movement of personnel (and knowledge) out of DOE laboratories is much less predictable.

Defenders of DOE's basic science programs argue that, contrary to the assertions of critics, the scientific merit of the programs is great. Scientific peers appar-

ently rate the quality of the programs' research as equivalent to that of the most research-intensive universities in the country. One survey of scientific citations of articles written by staff at DOE's multipurpose labs revealed that research scientists referred to the studies conducted there 20 percent more often than they referred to those coming out of research-intensive universities. The highest rates of citation were reserved for collaborations between university and DOE researchers. (Because new science is usually built on older findings, citation rates can measure the influence of particular findings and their usefulness to other scientists.)

Defenders also note that the scientific infrastructure that these programs provide has allowed scientists at universities and in industry to make advances in knowledge that have already proved useful. For example, much of the research into modern magnetic materials, which has enabled dramatic improvements in computer disks and other electronic devices, was conducted using DOE's neutron sources, which are funded through these programs.

Fusion R&D differs from the rest of the programs in basic research, and as a result, both the criticisms and defense of it differ as well. Like the basic research programs, its results are decades away from commercial application, but unlike them, it is directed at a specific application: producing electrical energy through nuclear fusion. Critics argue that the funding level for this one research area is high considering that, even under the most optimistic scenarios, nuclear fusion will not be producing power for several decades. They also contend that the program has prematurely focused on one technology and ignored the broader field. In response to those criticisms and to recent funding cuts, DOE is redesigning the fusion program to emphasize basic understanding of the scientific phenomenon, but the bulk of its funding will still go to a limited range of alternatives. Defenders argue that the fusion program was cut back so severely in 1995 that further cuts could jeopardize progress in that field.

DOM-05 ELIMINATE THE DEPARTMENT OF ENERGY'S APPLIED RESEARCH PROGRAMS FOR NUCLEAR POWER AND FOSSIL FUELS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	143	287	460	460	460	1,810
Outlays	59	174	329	425	460	1,447
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	156	313	500	514	530	2,013
Outlays	64	189	359	468	518	1,598

Two of the principal categories of applied energy research that the Department of Energy (DOE) pursues are developing nuclear power technology and designing more efficient and environmentally benign ways to use fossil fuels. In 1997, DOE expects to spend $478 million on research and development (R&D) in those two areas. Phasing out that R&D over the next three years would save $59 million in 1998 and $1.4 billion over the 1998-2002 period relative to the 1997 spending level. Relative to the 1997 level adjusted for inflation, this option would save $64 million in 1998 and $1.6 billion over the 1998-2002 period. (Those estimates allow for continued funding that would be required by law for some terminated programs.)

In the case of both fossil fuel and nuclear power R&D, critics of those programs maintain that development of applied energy technologies is better left to the private sector. They argue that companies in industries that are most likely to use the technology developed in such programs--often electric utilities--and their equipment suppliers may be better able than DOE researchers to understand the commercial value of technology development. (Federal agencies typically lack market feedback for determining when a new technology is too expensive--or esoteric--for commercial purposes.)

Critics of the programs further argue that DOE should concentrate on basic energy research and reduce its involvement in applied technology development. They contend that the federal government has a comparative advantage in developing the basic science around a new energy source but is at a comparative disadvantage in the costly technology development and demonstration phases. The Congress, in general agreement over the benefits of basic energy research, appropriated $2.4 billion for civilian basic research programs in DOE in 1997. (See DOM-04 for budget reduction options in those programs.)

The wisdom of pursuing new technologies in the field of nuclear energy R&D is questionable as long as electric utilities, the intended recipients, have no interest in building new nuclear power plants. (Part of the reason may be that national policy for addressing nuclear wastes remains undeveloped.) Since 1978, DOE has spent $9 billion on nuclear fission R&D, and during that period, not a single new nuclear plant was initiated.

Moreover, dramatic changes in the wholesale electricity market raise another concern. Policymakers recently began to open the electricity transmission market, enabling utilities to buy electricity from any group of suppliers rather than have to rely on captive sources. It may thus be time to let the newly opened market encourage the private sector to develop its own technology.

Defenders of DOE's programs argue that federally supported R&D in these areas helps offset several existing failures in the energy market and consequently represents a sound investment for the nation. Current energy prices, they point out, do not reflect the environmental damage done by excess reliance on fossil fuels,

including the potential for global warming. In addition, prices do not reflect the military and economic risks posed by reliance on foreign oil. Although DOE's R&D programs cannot correct those market failures in the short run, they may moderate their consequences over the long term.

With regard to nuclear energy R&D, defenders of that program contend that its research will keep the nuclear option open for the nation in the years to come. The need for energy sources that do not emit greenhouse gases may intensify as developing nations raise their level of energy consumption to match increases in industrialization. In addition, some of DOE's research may develop ways to consume nuclear wastes in the process of producing nuclear power. More generally, proponents argue that several technological advances have come from these efforts. For example, DOE claims that a partnership it established with industry developed a method of increasing the amount of energy extracted from each unit of nuclear fuel by 50 percent, thus reducing nuclear waste and lowering costs. Moreover, despite partial deregulation, proponents posit that electricity markets are still far from perfect and that, consequently, federal intervention is justified.

Advocates also note that these programs have already experienced a steady reduction in size over the past decade and a half, especially in the technology demonstration area. Spending has fallen by well over 90 percent in inflation-adjusted terms since the late 1970s, when all parties agreed that DOE was generally too involved in expensive technology demonstration projects. In 1996 and 1997 combined, the Congress further reduced appropriations by 25 percent from the 1995 level. (The major exception to the elimination of technology demonstration programs is the Clean Coal Technology Program, which is discussed in DOM-07.)

DOE notes that energy R&D is below the national average for all industries and that, more narrowly, private R&D in the energy area is stagnant or declining. Consequently, it avers, federal efforts are needed to compensate. All energy R&D, both federal and private, is equal to 1.1 percent of total spending on energy. By contrast, all R&D, again both federal and private, is equal to roughly 1.8 percent of the economy as a whole. Moreover, in the energy area, many of the largest corporate contributors to industrial R&D are reducing their spending because of corporate restructuring and the changing nature of competition in those markets.

DOM-06 ELIMINATE THE DEPARTMENT OF ENERGY'S APPLIED RESEARCH PROGRAMS FOR ENERGY CONSERVATION AND FOR SOLAR AND OTHER RENEWABLE ENERGY RESOURCES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	198	397	661	661	661	2,578
Outlays	65	224	438	602	653	1,982
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	215	432	715	735	755	2,852
Outlays	71	244	476	659	729	2,179

In 1997, the Department of Energy (DOE) will spend $661 million for research and development (R&D) projects to develop new technologies for energy conservation and solar and other renewable energy resources. Phasing out that R&D over the next three years would save $65 million in 1998 and $2.0 billion over the 1998-2002 period relative to the 1997 spending level. Relative to the 1997 level adjusted for inflation, eliminating that R&D would save $71 million in 1998 and $2.2 billion over the 1998-2002 period. (Funds for energy conservation R&D are distinct from technical and financial assistance programs, which would not be included in this option.)

Opponents of these programs make several arguments. Generally, they contend that the federal government should stop working to develop applied energy technologies and instead concentrate on basic research in the sciences that underlie them. Specifically, they note that many of the projects funded through these programs are small and discrete enough--and, in many cases, have a clear enough market--to warrant private investment. In such instances, DOE may be crowding out or preempting private-sector firms. In other instances, the programs conduct R&D that the intended recipients are likely to ignore--in many cases because it is too expensive or esoteric to implement.

Opponents of these programs also note that spending for energy conservation and solar and other renewable energy R&D is double its 1990 level, despite cuts in 1996 and 1997. In inflation-adjusted terms, spending for energy conservation R&D is still at the levels of the late 1970s, when all parties agreed that DOE was overly committed to expensive technology demonstration projects. By contrast, spending for DOE's solar and other renewable energy programs is only one-sixth of the peak levels in inflation-adjusted terms. (As a whole, applied energy R&D at DOE has fallen by roughly 85 percent since its peak.)

Critics of these programs also contend that the federal government supports the introduction of some of these technologies in other ways. Federal regulations require utilities to buy electricity produced by solar and alternative technologies, often at premium rates. Utilities are also encouraged to subsidize the purchase of conservation technologies by consumers. The tax code favors investments in conservation and solar energy technology and also provides incentives for the development of liquid fuels technologies derived from renewable resources (such as biomass). Ethanol fuels receive special treatment under the federal highway tax (see REV-33). In addition, federal regulations authorized by many different statutes favor alcohol fuels.

DOE's largest single solar energy program--photovoltaics--can claim to have achieved substantial success, and opponents might argue that an orderly withdrawal of support by federal agencies is now appropriate. For one thing, several large factories for producing photovoltaic cells are either in operation or under construction, mainly for the export market. Moreover, critics point out that foreign firms are likely to

dominate the photovoltaics market because of their higher domestic energy prices and hence their higher likely demand for alternative sources of energy. U.S. consumers can let those foreign companies and governments bear the costs of developing the energy sources and then buy the technologies later, when they are cheaper and have been perfected.

Defenders of these programs argue that major market failures continue to exist in energy markets, and thus federal R&D is needed to mitigate the long-term consequences of those failures. Energy consumers do not see the environmental damage done by excess reliance on fossil fuels, including the potential for global warming, in the energy prices they confront in the marketplace. Nor do those prices reflect the military and economic risks posed by reliance on foreign oil. Advocates admit that DOE's R&D programs cannot correct those market failures in the short term, but they argue that over the long term, such programs can help.

Funding for energy R&D is below the national average for all industries; specifically, energy-related R&D funded by private parties is stagnant or declining, despite the risks posed by the market failures discussed above. Most notably, electric utilities and other large corporate performers of and investors in energy R&D are cutting down such investments. (The usual explanations for that decline are corporate restructuring and the changing nature of competition in those markets.) R&D spending, both federal and private, is equal to roughly 1.8 percent of the economy as a whole. By contrast, all spending on energy R&D, again both federal and private, is equal to 1.1 percent of total spending on energy.

Advocates of continued federal spending for this R&D note that energy conservation and solar and other renewable energy technologies developed at DOE laboratories have moved successfully into commercial markets. The R&D programs for solar and other renewable resources have also had a history of requiring private financial participation in development projects to reduce the risk of sponsoring irrelevant research. Furthermore, advocates contend, even in instances in which the technologies have not yet been brought to market, applied federal research has brought down their costs substantially. That situation, they maintain, is different from R&D sponsored by DOE in the late 1970s, when the technology development that resulted would have been economic only if the price of oil was at a very high level.

One advantage these programs have over other R&D efforts in the energy technology area is that many of them are quite small. The small scale of the projects gives the Congress great flexibility in tailoring these programs to the size it wants without fear of losing all of their benefits, as is often the case with reductions in "big science" R&D programs. Over the years, many of the best outcomes of these research efforts have come from very small investments. Those successes include the development of films that make windows more energy efficient, which are now found on roughly a third of new and replacement windows. More recently, R&D sponsored by DOE helped develop a sulfur lamp, which promises to provide an efficient alternative to the mercury vapor lamp.

DOM-07 ELIMINATE FURTHER FUNDING FOR THE CLEAN COAL TECHNOLOGY PROGRAM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	15	15	15	15	15	75
Outlays	0	0	2	3	6	11
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	15	15	16	16	17	79
Outlays	0	0	2	3	6	11

The Clean Coal Technology Program (CCTP) was created in 1984 to assist private industry in developing commercial technologies that would use coal in environmentally sound ways. After five rounds of bid solicitations, the Department of Energy (DOE) will spend about $2.4 billion to fund and administer selected CCTP projects. The government's spending on those demonstration projects is limited to 50 percent of total costs. This option would complete projects already selected in rounds one through five of CCTP bid solicitations but eliminate any future funding for new projects. Savings would total about $11 million in projected outlays over the 1998-2002 period measured from both the 1997 funding level and the 1997 level adjusted for inflation.

An initial goal of the CCTP was to reduce acid rain by supporting technologies that could lower the emissions of sulfur dioxide (SO_2) and nitrogen oxides (NO_x) that result from coal combustion. President Reagan declared that his Administration would honor an agreement with Canada to spend $2.5 billion on clean coal technologies aimed at helping to curb acid rain in Canada. Other important goals of the program have been to promote the use of coal to replace imports of crude oil and to bolster the economies of coal-producing regions. Concerns about global warming and emissions of carbon dioxide have recently whetted policymakers' interest in increasing the efficiency of coal use.

Current practices that reduce SO_2 and NO_x emissions include cleaning the coal before burning it, scrubbing combustion gases to remove sulfur, switching to types of coal with a lower sulfur content, and switching to other fuels altogether. The new technologies that the CCTP supports fall into three general categories:

- o Retrofit technologies that lower harmful emissions from existing coal-fired plants by cleaning the coal before combustion, reducing the level of gases emitted during combustion, or scrubbing the gases emitted during combustion;
- o Repowering technologies that replace all or part of existing boilers with advanced combustion systems that both reduce emissions and increase power output; and
- o Conversion technologies that change coal into a liquid or gas.

Most of the projects funded by the CCTP will demonstrate technologies to retrofit or repower electricity-generating plants that burn coal.

Federal support for new clean coal technologies may no longer be necessary. In the past, supporters of the CCTP viewed it as an alternative to legislation for controlling acid rain: the enactment of ill-timed controls could force industry to invest in current, high-cost abatement technologies when new, low-cost ones might be just around the corner. Since the passage of the Clean Air Act Amendments of 1990, however, the private sector has faced a clear legislative mandate to lower coal-related emissions. Electric utilities and large industrial users of coal now have a clear economic mo-

tive for selecting the lowest-cost options for reducing emissions from among current practices and new technologies. DOE's efforts may also be redundant in the light of independent research efforts by utilities themselves and by states that produce high-sulfur coal and want to maintain the product's sales. Moreover, the energy-security benefit of increased coal use would be negligible, because coal today substitutes for oil in very few applications.

Alternatively, continued CCTP funding could hasten deployment of control and abatement technologies that would provide social benefits beyond what electric utilities would be willing to pay for under the Clean Air Act Amendments. Those benefits could come in the form of cleaner air and economic support for electricity consumers in general and for coal-producing regions in particular.

DOM-08 ELIMINATE ENERGY CONSERVATION GRANT PROGRAMS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	151	151	151	151	151	755
Outlays	38	121	144	151	151	605
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	155	160	164	169	173	821
Outlays	39	125	152	164	169	649

This option would halt new appropriations for three block grant programs that support energy conservation activities by the states. In 1997, the biggest of those appropriations is for weatherization assistance ($121 million), followed by institutional conservation and state energy conservation ($30 million). Halting new appropriations for those grant programs would save $38 million in 1998 outlays and $605 million in outlays from 1998 through 2002 measured against the 1997 funding level. Measured against the 1997 level adjusted for inflation, this option would save $39 million in 1998 outlays and $649 million in outlays through 2002.

Weatherization assistance grants supported by the Department of Energy's (DOE's) State and Local Partnership Program help low-income households reduce their energy bills by funding such activities as installing weather stripping, storm windows, and insulation. The states have reported to DOE that about 4 million homes have been weatherized since 1977, when the program began. Institutional conservation grants supported by DOE's State Energy Program help reduce the use of energy in educational and health care facilities by adding federal funds to private and local public spending to encourage local investment in building improvements. The State Energy Program also supports energy conservation programs of states and municipal governments that, for example, establish energy-efficiency standards for buildings and promote public transportation and carpooling. The DOE programs are independent of a similar block grant activity, the Low Income Home Energy Assistance Program, administered by the Department of Housing and Urban Development.

Federal grants to promote less consumption of energy are in many respects an artifact of the mid-1970s and the widespread concerns about energy security--for all sources, including oil, natural gas, and coal--prevalent at that time. Today, those concerns are more correctly focused on imported oil supplies. Little benefit to the cause of oil-supply security can come from state grant programs that help reduce residential and institutional demand for natural gas and coal-generated electricity. And although the government has attached some urgency to the need to reduce energy use for environmental reasons, federal support for reducing the use of gas and coal through conservation grants for security or environmental needs is clearly at odds with other federal policies that simultaneously promote the production and use of those fuels.

In any case, the large savings of energy that states claim for these conservation programs may be overstated. Those claims have never been subjected to critical analysis by DOE or by any of the Congressional support agencies. According to DOE, total annual savings are on the order of 4.7 quadrillion Btus (British thermal units), a questionable result given that the figure represents over 15 percent of current energy use in the residential and commercial sectors. In contrast, the 4 million homes that DOE reports have benefited from energy conservation grants constitute less than 5 percent of the total households in the United States.

Discontinuing the grant programs could impose hardships on states that wish to continue their energy conservation efforts but are experiencing financial distress. Many states still rely heavily on such grants to assist low-income households and public institutions. Also, the voluntary energy savings those programs make possible are an important part of the President's Climate Change Action Plan to reduce greenhouse gas emissions. Such considerations may compel continued federal support in the area of energy conservation.

This option would not affect spending for the three DOE grant programs that are funded by offsetting collections (money that the Department of Energy receives in court settlements resulting from current prosecutions of violations of federal laws regulating petroleum prices in the 1970s). Those collections total $30 million in 1997, with additional amounts estimated to total about $20 million over the 1998-2002 period.

DOM-09 ELIMINATE ELECTRIFICATION AND TELEPHONE CREDIT SUBSIDIES PROVIDED BY THE RURAL UTILITIES SERVICE

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	38	38	38	38	38	190
Outlays	4	11	21	30	36	102
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	39	40	41	42	43	205
Outlays	4	12	22	32	39	109

The Rural Utilities Service (RUS) is an agency within the Department of Agriculture that, among other activities, offers financial assistance in the form of subsidized loans and grants to electric and telephone companies serving primarily rural areas. This option addresses only the credit subsidies provided through loans for electrification and telephone service that were previously administered by the Rural Electrification Administration (REA). The former REA programs were combined with other loan and grant programs in 1994 to form the RUS. (Additional potential savings from cutting other RUS programs are described in DOM-32.)

For 1997, RUS subsidies to electric and telephone companies total about $38 million. In addition, the agency spends nearly $35 million per year administering those programs. Eliminating the credit subsidies for loans made or guaranteed by the RUS would reduce outlays by an estimated $4 million in 1998 and $102 million between 1998 and 2002 measured from the 1997 funding level. Total savings over that period from the 1997 funding level adjusted for inflation would be $109 million.

Most of the borrowing that the REA subsidized was established in the 1930s, 1940s, or 1950s. Many communities served by those borrowers are now much larger than the original service-area requirement of no more than 1,500 inhabitants. In total, the agency's borrowers serve about 10 percent of U.S. electricity consumers and about 4 percent of telephone customers.

Credit subsidies for loans to rural electric and telephone companies were reduced by more than one-half from 1993 to 1994, reflecting the significant changes in the program enacted in the Rural Electrification Loan Restructuring Act of 1993. Moreover, because the cost of federal borrowing declined significantly in 1992 and 1993, the average subsidy provided for the RUS's low-interest (5 percent) loans also decreased. Before passage of the 1993 act, most RUS borrowers were eligible for 5 percent loans. Under the restructured program, some borrowers are still eligible for the 5 percent loans; others may borrow from the agency at slightly higher (although still subsidized) rates; and still others may borrow either at the rate that the Treasury pays to borrow or 7 percent, whichever is less. Although the appropriation for the cost of subsidies for all lending related to rural electrification and telephone service declined from about $200 million in 1993 to about $38 million in 1997, the agency may still make new loans totaling about $1 billion this year.

The savings shown in the table could result from either of two scenarios: discontinue lending and require RUS borrowers to use private sources of capital for all of their loan needs, or continue a federal loan program but eliminate subsidies. A loan program with no subsidy costs would require raising the interest rates on loans to rural electric and telephone companies to the level of the Treasury's cost of borrowing; it would also mean charging small loan origination fees to cover the cost of defaults for certain classes of loans. In addition

to savings in subsidy costs, some savings in administrative costs could result if all such lending was discontinued. Some of the nearly $35 million per year in current salaries and expenses would be required to administer existing loans, but those costs could be gradually reduced under a no-new-lending option. Potential administrative savings of more than $25 million over the 1998-2002 period could be achieved by eliminating the program, but those additional savings are not counted in this option.

The loan program for rural electrification and telephone service has largely fulfilled its original goal of making those services available in rural communities. Yet many borrowers still depend on federal loans to maintain and expand those utilities. Increasing the interest rates or charging origination fees on some loans would raise the rates such borrowers charged their customers, especially in the rural regions that are most affected. Borrowers argue that they need some level of subsidization to keep their service and utility rates comparable with those in urban areas. Most RUS borrowers already use some private financing, however. Because the cost of interest accounts for only a small percentage of the typical customer's bill, eliminating the remaining federal subsidy would have little effect on the utility rates that most borrowers charge their customers.

DOM-10 INCREASE NET RECEIPTS FROM NATIONAL FOREST TIMBER SALES

	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
From the 1997 Funding Level						
Budget Authority	25	35	40	50	60	210
Outlays	20	30	35	45	55	185
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	25	35	40	50	60	210
Outlays	20	30	35	45	55	185

The Forest Service (FS) manages federal timber sales from 119 national forests in the national system. In 1996, the FS sold roughly 3.4 billion board feet of public timber under contract to private lumber companies. Those companies may harvest the timber over several years; they make payments to the FS only upon harvest. The total 1996 harvest, approximately 3.7 billion board feet, represented a continuing decline in volume from previous years. It brought in about $544 million in federal timber receipts, but during 1996, the FS spent over $850 million on timber management, reforestation, construction of logging roads, payments to states, and other timber program costs. Thus, the FS spent more on the timber program than it collected in receipts for timber harvesting.

The FS does not maintain the data needed to estimate annual timber receipts and the expenditures associated with each individual timber sale. Therefore, it is hard to determine precisely the budgetary savings that could be achieved by phasing out all timber sales in the National Forest System for which expenditures were likely to exceed receipts. As an illustration of the potential savings, however, eliminating all future timber sales from three National Forest System regions in which past imbalances between cash receipts and expenditures have been prominent would reduce net outlays in the federal budget by about $185 million through 2002.

In seven of the nine National Forest System regions, annual cash receipts from federal timber harvests have failed to cover the FS's annual cash expenditures. In the Rocky Mountain, Northern, and Intermountain regions, for example, cash expenditures have consistently exceeded cash receipts over the past decade. Annual costs of the timber program in those three regions still exceed annual timber receipts if FS expenditures for road construction are excluded. Eliminating all future timber sales from those regions would reduce FS outlays over the 1998-2002 period by about $440 million; at the same time, timber receipts would fall by about $255 million after subtracting payments to states, producing net savings of $185 million. (Hence, the estimates shown above are the net effect of changes in both discretionary and mandatory budgets.)

Timber sales for which spending exceeds receipts have several potential disadvantages. They may lead to increases in the federal deficit, excessive depletion of federal timber resources, and destruction of roadless forests that are valued by many recreational visitors.

Potential advantages of the sales include community stability in areas dependent on federal timber for logging and other related jobs. Timber sales also improve access to the land--as a result of road construction--for fire protection and recreation.

DOM-11 IMPOSE A FIVE-YEAR MORATORIUM ON LAND PURCHASES BY THE DEPARTMENTS OF AGRICULTURE AND THE INTERIOR

	Annual Savings (Millions of dollars)					Five-Year Cumulative
	1998	1999	2000	2001	2002	Total
			From the 1997 Funding Level			
Budget Authority	139	139	139	139	139	695
Outlays	45	97	129	139	139	549
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	142	147	152	156	162	759
Outlays	46	100	137	152	157	592

In 1997, the Departments of Agriculture and the Interior will receive appropriations of about $140 million to buy land that is generally used to create or expand designated recreation and conservation areas, including national parks, national forests, wilderness areas, and national wildlife refuges. Placing a five-year moratorium on future appropriations for land acquisition by those departments would save $45 million in 1998 and $549 million between 1998 and 2002 measured against the 1997 funding level, or $46 million in 1998 and $592 million between 1998 and 2002 measured against the 1997 level adjusted for inflation. The option would provide for a small annual appropriation ($10 million) to cover emergency acquisition of important tracts that became available on short notice, compensation to "inholders" (landholders whose property lies wholly within the boundaries of an area set aside for public purposes, such as a national park), and ongoing administrative expenses.

Proponents of this option argue that land management agencies should improve their stewardship of the lands they already own before taking on additional management responsibilities. In many instances, the National Park Service, the Forest Service, and the Bureau of Land Management find it difficult to maintain and finance operations on their existing landholdings. Further, given the limited operating funds of those agencies, environmental objectives such as habitat protection and access to recreation might be best met by improving management in currently held areas rather than providing minimal management over a larger domain. Another argument made in favor of this option is that the federal government already owns enough land. Currently, more than 650 million acres--approximately 30 percent of the United States' land mass--belong to the government. The sentiment that this amount is sufficient is particularly strong in the western United States, where nearly half of the land area of 11 states is under federal ownership.

Opponents argue that future land purchases are necessary to achieve ecosystem management objectives and fulfill existing obligations for national parks. Much of the land targeted by the Congress for new and expanded federal reserves is privately held, and acquiring it will require purchases. Furthermore, encroaching urban development and related activities outside the boundaries of national parks and other federal landholdings may be damaging resources inside the parks. Land acquisition is an important tool for mitigating that problem. Acquisitions that consolidate landholdings may also help to improve the efficiency of public land management.

DOM-12 ELIMINATE FEDERAL GRANTS FOR WATER INFRASTRUCTURE

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	2,236	2,236	2,236	2,236	2,236	11,180
Outlays	137	705	1,496	1,927	2,135	6,400
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	2,292	2,355	2,417	2,482	2,550	12,096
Outlays	140	726	1,557	2,040	2,308	6,771

The Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA) require municipal wastewater and drinking water systems to meet certain performance standards in order to protect the quality of the nation's waters and the safety of its drinking water supply. The Clean Water Act provides financial assistance so communities can construct wastewater treatment plants that comply with the act's provisions. (The CWA requires secondary treatment of wastewater to remove at least 85 percent of raw pollutants.) The 1996 amendments to the Safe Drinking Water Act authorized a state revolving loan program for drinking water infrastructure. For 1997, the Congress appropriated about $2.2 billion for water infrastructure programs, including funds for wastewater programs and the new program for drinking water facilities.

This option would end all funding of new water infrastructure projects after 1997, saving $137 million in 1998 and $6.4 billion through 2002 compared with extending the 1997 funding level. Compared with the 1997 level adjusted for inflation, savings would total $140 million in 1998 and $6.8 billion over five years.

The first federal construction grants for water infrastructure were provided by the Federal Water Pollution Control Act Amendments of 1956. Construction grants for wastewater treatment plants were reauthorized and significantly increased in 1972 under the Title II categorical grant program of the Clean Water Act. The Environmental Protection Agency (EPA) administered the construction grant program by providing grant assistance directly to municipalities for wastewater treatment projects. (Federal funds for the program were and still are channeled through EPA's annual appropriations.)

As amended in 1987, the Clean Water Act phased out Title II grants and authorized a new grant program under Title VI to support state revolving funds (SRFs) for water pollution control. Under the new system, states continue to receive federal grants, but now they are responsible for developing and operating their own programs. For each dollar of Title VI grant money a state receives, it must contribute 20 cents to its SRF. States use the combined funds to make low-interest loans to communities for building or upgrading municipal wastewater treatment facilities. Local agencies that borrow funds from the SRF for construction must repay them, thus creating a revolving source of capital for other local communities.

Although authorization for the SRF program under the Clean Water Act has expired, the Congress continues to provide annual grant appropriations. On average, the Congress has appropriated $1.7 billion annually for the program in recent years. Since 1972, it has provided a total of around $67 billion in Title II and Title VI grants to assist localities in complying with the CWA.

In addition to the wastewater SRF program, since 1992 the Congress has earmarked funds in annual appropriation bills for grants to a selected group of wastewater projects. The grant funds are generally made available to special construction projects for

wastewater infrastructure and other projects designed to improve water quality in individual cities. The EPA administers funds for those projects through its General Grant Regulation program. Since 1995, the Congress has appropriated over $1.5 billion for direct grants to about 90 water infrastructure and water quality projects.

As amended in 1996, the SDWA authorizes the EPA to make grants to states for capitalizing drinking water revolving loan funds. As with the wastewater SRF program under the Clean Water Act, states may use those funds to make low-cost financing available to public water systems for constructing facilities (in this case, to treat drinking water). In 1997, the Congress appropriated $1.3 billion for capitalization grants for drinking water SRFs.

Proponents of eliminating federal grants to water-related SRFs say such grants may encourage inefficient water treatment decisions by allowing states to loan money at below-market interest rates. Below-market rates could reduce incentives for local governments to find less capital-intensive and less costly alternatives for controlling water pollution and treating drinking water. In addition, federal contributions to wastewater SRFs were intended to help in the transition to full state and local financing of the funds by 1995. Thus, proponents of ending federal grants to those SRFs argue that the program was intended to be temporary and may have replaced, rather than supplemented, state and local spending.

Opponents of such cuts argue that states and localities could have trouble meeting the federal treatment deadlines without continued federal grants--both because repayments to the SRFs would be too small to fund new projects, and because states would be unable to shoulder the additional cost of offsetting decreased federal contributions. (EPA estimates that $127 billion in additional treatment facilities and upgrades would have to be built over the next two decades for states to meet the Clean Water Act's current goals.) Also of concern is how to assist small and economically disadvantaged communities that have had the most difficulty complying with CWA and SDWA requirements. Some people who oppose eliminating the federal grants maintain that doing so would increase the burden of unfunded federal mandates on state and local governments.

DOM-13 CANCEL UNECONOMIC WATER PROJECTS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	170	170	170	170	170	850
Outlays	108	160	170	170	170	778
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	175	180	185	191	197	928
Outlays	112	168	183	189	194	846

The federal government has spent billions of dollars developing multipurpose water resource projects in the United States through the Bureau of Reclamation and the Army Corps of Engineers. In 1996, those two agencies spent more than $1.7 billion constructing water projects; they are expected to spend about the same amount this year. Canceling construction on projects whose costs are likely to exceed their economic benefits would save at least $108 million in 1998 and $778 million over the 1998-2002 period compared with the 1997 funding level. Savings from the 1997 funding level adjusted for inflation would be at least $112 million in 1998 and $846 million through 2002.

Over the past century, reclamation projects have brought water and power to cities and agriculture in the western United States, contributing to the economic growth of that region. Other projects have provided important navigation and flood-control benefits throughout the country. Over time, however, the number of projects in which the potential benefits exceed costs has decreased. In some cases, the federal government is investing in projects that are projected to produce low or even negative economic returns. For example, the Animas-La Plata project, with an estimated federal cost of $450 million, is expected to produce only 36 cents of benefits for each dollar spent to build it, according to the Bureau of Reclamation's analysis. Another example is the Levisa and Tug Forks project, with an estimated federal cost of over $1.5 billion. An analysis by the Army Corps of Engineers concluded that costs for every part of the project exceed benefits. Many other projects have not been analyzed but would most likely have low or negative economic returns.

The savings estimated for this option are illustrative; they do not assume cancellation of any specific project. To carry out this option fully, further analysis would be needed to identify which projects could be eliminated. Existing analyses of costs and benefits would need to be updated--for example, by using a current discount rate instead of the one applied when the project was authorized. Projects for which benefits and costs were never analyzed would need evaluation. The Congressional Budget Office believes that further analysis will probably show that at least 10 percent of current construction spending by the Bureau of Reclamation and the Army Corps of Engineers is for water projects whose costs are likely to outstrip their economic benefits.

Proponents of canceling projects with greater costs than benefits assert that the government should not spend scarce resources on investments with low returns. Many proponents would argue that even when benefits seem to exceed costs, they in fact do not. For example, the costs of environmental damage caused by some projects either are not included or, some would argue, are severely understated. Given that bias toward underreporting costs, proponents contend, if benefits are less than costs for a particular project, it is certainly a bad investment. Supporters of cancellation also as-

sert that the benefits of water projects accrue mostly to a few individuals, whereas the costs are spread among all taxpayers.

Opponents of canceling projects whose costs exceed economic benefits assert that those calculations often exclude important benefits that cannot or should not be converted to dollars and cents. For instance, several important projects, such as Animas-La Plata, are needed to settle outstanding water-rights claims with Native American tribes. The cost of finding alternative means to settle such claims could offset some of the savings from canceling those projects. In cases where the beneficiaries of a project are relatively poor, some benefits--such as flood protection--are underestimated because of the low economic value of the protected communities. Opponents of cancellation also claim that the government should honor prior commitments made with the communities that would benefit from the authorized projects.

DOM-14 ELIMINATE THE SUPERFUND PROGRAM OR REVISE ITS CLEANUP CRITERIA

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Eliminate the Program						
From the 1997 Funding Level						
Budget authority	815	1,359	1,359	1,359	1,359	6,251
Outlays	203	625	978	1,169	1,264	4,239
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	838	1,437	1,478	1,521	1,565	6,839
Outlays	210	653	1,040	1,269	1,405	4,577
Revise the Cleanup Criteria						
From the 1997 Funding Level						
Budget authority	150	150	150	150	150	750
Outlays	38	90	120	135	143	526
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	154	159	163	168	173	817
Outlays	39	94	128	146	159	566

The Superfund program has been in existence since 1981 but is far from completing its mission of cleaning up the nation's worst hazardous waste sites. The Environmental Protection Agency (EPA), which administers the program, has placed 1,387 sites on the National Priorities List (NPL) as of the end of 1996. EPA's most recent estimate of the total costs of the program is $31 billion, including $16 billion in 1996 and beyond, but those costs will probably rise as additional sites are added to the NPL. They only include sites not owned by the federal government; substantial related expenditures will be required by the Energy and Defense Departments and by other agencies responsible for federally owned NPL and non-NPL sites.

Superfund's critics argue that the program takes too long to clean up sites, creates excessive litigation in the private sector, and addresses a problem that poses too little risk to health and the environment to justify its costs. The program's supporters argue that the pace of Superfund cleanups has increased in recent years: at the end of 1996, 410 NPL sites were either cleaned up or in the final phase (operations and maintenance), compared with 61 sites in that condition at the end of 1991. Supporters also contend that litigation costs can be reduced through reforms that do not abandon the basic nature of the program and that cleaning up contaminated sites significantly reduces health risks and is a high priority with the American public.

Eliminate the Program. One approach the Congress could take to reduce federal spending for Superfund would be to terminate the program. That approach would retain regulations regarding cleanup at federally owned sites and "treatment, storage, and disposal" facilities covered by the Resource Conservation and Recovery Act, but it would eliminate Superfund's cleanup requirements and liability system for abandoned, nonfederal waste sites. After taking into account various shutdown costs, that option would save $203 million in 1998 and $4.2 billion over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, it would save $210 million in 1998 and $4.6 billion over five years.

The two main arguments for eliminating the Superfund program are that hazardous waste sites pose relatively low risks to the public and that such sites are local concerns that should be handled, to the extent that they are handled at all, at the state or local level. In a 1987 report, EPA experts ranked the cancer risks of inactive hazardous waste sites as the eighth highest of 29 environmental problems studied (below worker and consumer exposure to chemicals, radon and other indoor air pollutants, pesticide residues on food, outdoor air pollution, and ozone depletion) and judged the noncancer health risks to be in the lowest of three risk groups.[1] Moreover, unlike problems of air and water pollution, problems associated with hazardous wastes generally do not extend beyond the vicinity of the waste sites themselves. (Sites that contaminate large rivers or underground aquifers are the main exception to that rule, but even those sites typically affect areas within only one or two states.) Indeed, the large majority of states have already established their own cleanup programs for sites not addressed under the federal law.

The case for continuing the federal Superfund program begins with the argument that cleaning up hazardous waste sites is worthwhile. EPA cites what it calls a growing body of evidence that people living near Superfund sites have more health problems than the general public, including birth defects, leukemia, cardiovascular abnormalities, respiratory illness, and immune disorders. Many sites have exposed people to such hazards as lead, trichloroethylene, chromium, benzene, and arsenic.

One argument for continuing to run the cleanup program at the federal level is that doing so yields economies of scale: dealing with a large number of sites allows EPA to learn from experience, and centralization aids the coordination and dissemination of research on improved cleanup technologies. A second argument is that some states that wished to continue cleanups at Superfund sites within their borders would have difficulty replacing the federal dollars. Superfund's excise taxes on petroleum and chemicals would yield little or no revenue in some states and might be unworkable (because of business mobility) in others, so many states would have to use more broadly based taxes on personal or business income or property, or cut other forms of spending. Although current Superfund spending is on the order of 0.1 percent of the budgets of state and local governments nationwide, states with small tax bases and large cleanup problems could face difficult trade-offs.

Revise the Cleanup Criteria. Another option would be to change the standards and methods used to protect health and the environment at Superfund sites. Less stringent cleanup standards could be chosen when they were consistent with the expected use of the land in the future. And the statutory preference for permanent treatment technologies could be relaxed to allow more use of containment methods, such as caps, slurry walls, and surface water diversion. An unpublished EPA analysis estimated that a set of such changes proposed by the Administration in 1994 would reduce annual cleanup costs in the Superfund budget by $156 million, or 19 percent. That figure is consistent with a range of savings of $101 million to $162 million calculated independently by the Office of Management and Budget. In 1995, studies by researchers at Brattle/IRI and at the University of Tennessee estimated that average cleanup costs could be reduced, respectively, by 35 percent to 38 percent or by 21 percent by eliminating the statutory criteria of permanence, treatment, and "applicable or relevant and appropriate requirements" and instead focusing on protecting health and the environment at the lowest cost. The Brattle/IRI study analyzed 50 EPA cleanup decisions, and the Tennessee researchers examined 514 decisions. The Tennessee study also estimated that cleanup costs could be cut by 34 percent through a 50 percent reduction in the use of treatment technologies.

The potential savings from this option would depend on the specific legislative language used to change the program. As an illustration, the Congressional Budget Office has estimated the effects of a 30 percent reduction in cleanup costs. Such a change would reduce outlays for Superfund cleanups by $526 million over the 1998-2002 period measured from the 1997 funding level or by $566 million measured from the 1997 level adjusted for inflation. To realize those savings, budget authority for the Superfund program would have to be cut in the annual appropriation process. (Total savings could be somewhat greater if the Congress also cut budget authority for Superfund's enforcement activities, on the grounds that the private parties legally responsi-

1. Environmental Protection Agency, Office of Policy, Planning, and Evaluation, *Unfinished Business: A Comparative Assessment of Environmental Problems* (February 1987).

ble for cleanup would have less incentive to contest their liabilities. Potentially large additional savings could result from cutting appropriations for related cleanup programs of the Departments of Energy and Defense.) Alternatively, the Congress could choose to maintain appropriations at the 1997 or 1997-plus-inflation level to increase the number of sites undergoing cleanup at one time (which would push the deficit savings into the future).

Proponents of this option argue that it is wasteful to spend more on Superfund cleanups than is necessary to protect health and the environment and that the use of more permanent remedies (such as incineration, bioremediation, and vitrification) can be deferred until land-use needs are clearer and treatment technologies are better developed. Opponents argue that the option may not provide as much protection as supporters claim and that invoking it would be unfair to local communities (which would bear the disruptive effects of the land-use restrictions) and to future generations (which would bear any costs of replacing interim cleanups with more permanent measures).

DOM-15 REDUCE NATIONAL WEATHER SERVICE COSTS

	Annual Added Receipts or Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Price NWS Information at Market Value						
Addition to Current-Law Receipts	2	2	2	2	2	10
Eliminate the NOAA Weather Radio Network						
Savings from the 1997 Funding Level						
Budget authority	7	7	7	7	7	35
Outlays	4	6	6	7	7	30
Savings from the 1997 Funding Level Adjusted for Inflation						
Budget authority	7	7	7	7	8	36
Outlays	4	6	7	7	8	32

The National Weather Service (NWS) provides weather and flood warnings, public forecasts, and severe-weather advisories to protect lives and reduce property damage from those hazards. The annual budget for such services, including operating weather satellites, is about $1 billion. The NWS is in the midst of a multiyear $4.5 billion modernization and restructuring program to upgrade technology and replace obsolete equipment. That ambitious effort, which the NWS expected to yield significant benefits, has been hampered by large cost overruns, delays, and operational problems.

A range of privatization options for the NWS offer potential opportunities for budgetary savings and better customer service. Private firms already play a significant role in the weather service industry. Estimates of the gross annual revenues of the more than 100 firms in the private weather sector range from $200 million to $250 million; however, the scope of the private market is constrained by the operations of the NWS. Official government policy states that the NWS "will not compete with the private sector when a service is currently provided or can be provided by commercial enterprises, unless otherwise directed by applicable law." The NWS is privatizing most of its specialized weather services, which provide targeted benefits to the aviation, marine, and agricultural communities. Annual savings will be about $3 million. To yield the most budgetary savings, the government could limit its role to supporting services that are essential to ensure public safety and the international exchange of information, and possibly to underwriting basic research.

Price NWS Information at Market Value. Currently, the NWS allows open access to all of its weather data and information services. Access to that information has contributed substantially to the growth of the weather service information industry, which transforms NWS data and general forecasts for large areas into marketable specific forecasts. Commercial users--such as the Weather Channel and Accu-Weather--pay fees to cover the costs of computer hookups and transmission of NWS data. Such fees are about half of the fair market value of those services.

The Omnibus Budget Reconciliation Act of 1990 set fees based on the fair market value of NWS data and information. The law excluded certain information from the fee structure, such as warnings and watches, international agreements, and data for nonprofit institutions. Initially, increases in the fee were limited to $2

million annually. However, the NWS viewed fair market pricing as a significant barrier to public access to its information and received approval from the Office of Management and Budget to reset the user fee to recover only the cost of disseminating the information. Charging firms fees that are based on the fair market value of access to that information could raise $10 million over five years.

Charging for information would lessen its dissemination but would also encourage the production of information that customers value. Market-based charges would be unlikely to result in the general public's having substantially less access to weather reports. For example, as long as the news media are willing to pay for private forecasts, the market will demand NWS products. In addition, because the fee structure would not apply to severe-weather warnings, the safety of the general public would not be an issue. Many European nations routinely charge users for weather information provided by their satellites.

Eliminate the NOAA Weather Radio Network. A 1983 Booz-Allen consulting study pushed for the elimination of the National Oceanic and Atmospheric Administration's (NOAA's) Weather Radio Network. It argued that the private media were disseminating weather forecasts and NWS products widely and that less than 5 percent of the population relied on the NOAA Weather Radio as their primary source of information. Eliminating the network would lower outlays by $30 million during the 1998-2002 period measured from the 1997 funding level. The savings from the 1997 funding level adjusted for inflation would be $32 million over that period.

The Administration believes that the NOAA network performs an essential public safety role that cannot be picked up easily by commercial radio. The President's 1997 budget proposed replacing and modernizing the NOAA Weather Radio transmitters. The President decided to strengthen the system after a tornado took the lives of 20 people in a rural Alabama church despite a 12-minute warning issued by the Birmingham weather office. Currently, many rural areas are not covered by broadcasts of NWS weather and flood warnings. Weather radios, which have a signal receptor, automatically turn on when a warning has been issued over the Weather Radio Network. Those signals also alert weather spotters, who provide supplemental information that enables forecasters to issue more accurate and more timely warnings and advisories to the public to be on the lookout for hazardous weather. Commercial stations and transmitters do not provide that service.

DOM-16 REDUCE FEDERAL SUPPORT FOR AGRICULTURAL RESEARCH AND EXTENSION ACTIVITIES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
	From the 1997 Funding Level					
Budget Authority	175	175	175	175	175	875
Outlays	109	155	171	174	175	784
	From the 1997 Funding Level Adjusted for Inflation					
Budget Authority	180	186	191	197	203	957
Outlays	112	163	184	193	200	852

The Department of Agriculture (USDA) conducts and supports agricultural research and education. In particular, the Agricultural Research Service, the department's internal research arm, focuses on maintaining and increasing the productivity of the nation's land and water resources, improving the quality of agricultural products and finding new uses for them, and improving human health and nutrition. The Cooperative State Research, Education, and Extension Service (CSREES) participates in a nationwide system of agricultural research and educational program planning and coordination between state institutions and the USDA. The CSREES also takes part in the Cooperative Extension System, a national educational network that combines the expertise and resources of federal, state, and local partners. The Economic Research Service carries out economic and other social science research and analysis for public and private decisions about agriculture, food, natural resources, and rural America.

The 1997 appropriations for those three USDA agencies total $1.75 billion. Reducing funding levels by 10 percent would save $784 million in outlays over the 1998-2002 period measured from the 1997 funding level or $852 million measured from the 1997 level adjusted for inflation.

Federal funding for agricultural research may, in some cases, replace private funding. If federal funding was eliminated in those instances, the private sector could finance more of its own research. Moreover, federal funding for some extension activities under the CSREES could be reduced without undercutting its basic services to farmers. For example, funding for the Nutrition and Family Education and Youth at Risk Programs amounted to $68 million under the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act for 1997.

Opponents of reducing funding for research and extension activities argue that the programs play important roles in developing an efficient farm sector--a reduction in federal funding could compromise the sector's future development and its competitiveness in world markets. If the burden of funding was transferred to the private sector, agricultural research, which contributes to an abundant, diverse, and relatively inexpensive food supply for U.S. consumers, could decline. Moreover, some federal grants are used to improve the health of humans, animals, and plants by funding research that promotes better nutrition or more environmentally sound farming practices. If federal funding was cut back, the public might have to bear some of that cost in higher prices, forgone innovations, and environmental degradation.

DOM-17 REDUCE DEPARTMENT OF AGRICULTURE SPENDING FOR EXPORT MARKETING AND INTERNATIONAL ACTIVITIES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	30	30	30	30	30	150
Outlays	16	30	30	30	30	136
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	31	32	33	34	35	165
Outlays	16	31	32	33	34	146

The Department of Agriculture (USDA) promotes exports and international activities through the programs of the Foreign Agricultural Service (FAS). For example, in the Foreign Market Development Cooperator Program, FAS acts as a partner in joint ventures with "cooperators," such as agricultural trade associations and commodity groups, to develop markets for U.S. exports. FAS also collaborates on other ventures, one of which, the Cochran Fellowship Program, provides training to foreign nationals with the objective of improving commercial relationships that will benefit U.S. agriculture. Eliminating funding for those two programs would reduce outlays by $136 million over the 1998-2002 period measured from the 1997 funding level or by $146 million measured from the 1997 level adjusted for inflation.

The Foreign Market Development Cooperator Program, also known as the Cooperator Program, typically promotes generic products and basic commodities, such as grains and oilseeds, but the program also covers some high-value products, such as meat and poultry. Some critics argue that cooperators should bear the full cost of foreign promotions because the cooperators benefit from them directly. (How much return, in terms of market development, the Cooperator Program actually generates or the extent to which it replaces private expenditures with public funds is uncertain.) Some observers also cite the possibility of duplication because the USDA provides funding for marketing through its Market Access Program and other activities.

Eliminating the Cooperator Program, however, could place U.S. exporters at a disadvantage in international markets, depending in part on the amount of support other countries provide to their exporters. Responding to the issue of duplication, some advocates note that the Cooperator Program is distinct from other programs, in part because it focuses on services to trade organizations and technical assistance. People concerned about U.S. exports of generic products and basic commodities consider the program a useful tool for developing markets that could have benefits for the economy overall.

The Cochran Fellowship Program brings foreign midlevel managers to the United States for training in agriculture and agribusiness. Although the program is popular among recipients and their sponsors, its direct benefits to U.S. agriculture are unknown; thus, it may be of marginal value to taxpayers. However, eliminating the Cochran Fellowship Program could hurt U.S. agriculture to the extent that the program builds commercial relationships, introduces foreign professionals to U.S. products, and creates new opportunities for U.S. exports.

DOM-18 END SMALL BUSINESS ADMINISTRATION LOANS AND LOAN GUARANTEES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			End All Credit Programs			
From the 1997 Funding Level						
Budget authority	332	342	351	360	370	1,755
Outlays	210	318	343	353	363	1,587
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	341	361	381	402	425	1,910
Outlays	216	334	369	391	412	1,722
			Keep Disaster Programs			
From the 1997 Funding Level						
Budget authority	211	216	221	225	230	1,103
Outlays	142	203	213	218	223	999
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	217	228	239	251	264	1,199
Outlays	146	213	229	241	253	1,082

The Small Business Administration (SBA) provides both direct loans and loan guarantees to qualified small businesses. The SBA's lending objectives are to promote business development generally and to assist small businesses and homeowners in recovering from disasters. Eliminating all SBA loan and loan guarantee programs would reduce outlays by $1.6 billion over the 1998-2002 period measured against the 1997 funding level or by $1.7 billion relative to the 1997 level adjusted for inflation.

Those estimates assume that the SBA would continue to fund various business education and training programs. In addition, the SBA would still have responsibilities for managing its loan portfolio, including liquidations and possibly loan asset sales. The estimates project a decline in the administrative costs of managing the portfolio over the 1998-2002 period as the loans mature and expire.

An alternative to eliminating all loans would be to retain only those that provided assistance to disaster victims. Following that course could reduce SBA outlays by $1.0 billion over the 1998-2002 period measured against the 1997 funding level or by $1.1 billion relative to the 1997 level adjusted for inflation.

The disaster loan program--which lends money to homeowners and businesses to repair uninsured property damage caused by a natural disaster (usually federally declared)--constituted about half of the SBA's outlays in 1996. Although the Federal Emergency Management Agency also helps disaster victims through grants, loans are generally more cost-effective than grants because the federal government recoups some or all of the loan amount. In general, federal assistance to disaster victims can cause businesses and homeowners to underinsure against future disaster risks. Grants to disaster victims can create a greater incentive to underinsure than loans do.

In recent years, estimates of the default rate on the SBA's disaster loans have ranged between roughly 10 percent and 13 percent (net of recoveries). To reduce

program costs, the SBA has proposed increasing the current 4 percent interest rate on disaster loans to the Treasury rate for debt of comparable maturities. According to the SBA, that would lower the subsidy rate on disaster loans--the expected budgetary cost of extending credit--by about 70 percent. Any percentage decline in the subsidy rate would reduce the nonadministrative costs of future loans by the same proportion. In 1996, the nonadministrative costs of the disaster loan program totaled $270 million.

Under the loan guarantee program, the federal government guarantees 80 percent of the principal for business loans up to $100,000 and 75 percent of the principal for larger ones. The interest rate on guaranteed loans is about 2.5 percentage points above the prime rate; in addition, the SBA guarantee has a charge of between 2 percent and 4 percent of the amount guaranteed. In 1996, the SBA guaranteed over 45,000 loans totaling more than $5.8 billion; its share of the guaranteed loans was roughly $4.7 billion. Holders of about 3,400 guaranteed loans defaulted in 1996, and the loans were subsequently purchased by the SBA. The Small Business Administration's share of the outstanding balances of those loans exceeded $1.5 billion.

The 104th Congress amended both the Small Business Act and the Small Business Investment Act to reduce subsidy rates and improve the performance of the SBA's business loan programs. Among the most significant changes, the Congress increased the fees paid by loan recipients for most business loans and authorized certain lenders to liquidate defaulted SBA business loans. Increasing the fees that borrowers pay helps to reduce program costs because the revenues from the fees cover some of the expenses if a borrower defaults. The Congress also cut the percentage of each loan that the government guarantees under the SBA's largest loan program--the 7(a) program--from about 90 percent to about 80 percent. Reducing the guarantee rate should induce banks to take more care in evaluating loan applications because they will share more responsibility for the losses if a default occurs. If banks are more selective in approving SBA loans, the default rate should decline, and the cost to the government of the loan program should decrease.

SBA assistance is favored by people who view it as a way of aiding small businesses--which, they argue, generally create more jobs, improve technology more rapidly, and satisfy some markets more efficiently than do large firms. When banks and other traditional sources of loans to small businesses tighten credit standards or become more conservative in their lending practices, SBA assistance can help to fill a financing gap.

Small businesses rely more heavily on banks for financing than do large businesses, which find it easier to raise capital through the stock, bond, and commercial paper markets. Furthermore, small businesses may lack the collateral to secure conventional commercial loans. The SBA extends credit for up to 25 years--a significantly longer term than would otherwise be available to small businesses. Other sources of financing available to small businesses besides banks include finance companies, venture capital firms, leases, home-equity loans, and to some extent credit cards.

Opponents of SBA assistance claim that it tends to flow to the firms least likely to create stable employment, improve technology, or enhance national productivity. New firms, which are usually small, create most new jobs; but most new firms fail within a few years, eliminating many of the jobs created. SBA loans and loan guarantees go primarily to businesses that have been rejected by conventional providers of financing. Perhaps as a result, they have a high default rate. It can also be argued that financial markets are now more efficient and less susceptible to the types of market failure that justified the SBA program when it began.

DOM-19 REDUCE COSTS OF THE ITA BY ELIMINATING TRADE PROMOTION ACTIVITIES OR CHARGING THE BENEFICIARIES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	159	186	186	186	186	903
Outlays	112	162	182	184	184	824
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	166	199	205	212	219	1,001
Outlays	116	172	198	207	214	907

The International Trade Administration (ITA) of the Department of Commerce has four direct program activities: the Import Administration, which investigates antidumping and countervailing-duty cases; the trade development program, which assesses the competitiveness of various U.S. industries and runs various export promotion programs; the market access and compliance (MAC) unit, which works to unlock foreign markets for U.S. goods and services; and the U.S. and foreign commercial services, which counsel U.S. businesses on exporting. The MAC unit, and perhaps the countervailing-duty program against foreign subsidies, may be necessary to maintain public support for free-trade policies, and in some cases they can be defended on economic grounds. The ITA's export promotion, marketing, and counseling could be eliminated, however, or the beneficiaries could be charged fees to pay more of the costs.

Eliminating those activities would reduce outlays by $112 million in 1998 and by $824 million over five years measured from the 1997 funding level. Doing so would reduce outlays by $116 million in 1998 and by $907 million over five years measured from the 1997 level adjusted for inflation. Alternatively, this option could include a mixture of spending reductions and increased user fees to cover some of the costs of trade promotion activities.

One might argue that such activities were better left to the firms and industries involved rather than to the ITA. Alternatively, one could argue that there might be some economies of scale to those activities, especially for small firms. If so, having one entity (the federal government) counsel exporters on foreign legal and other requirements, disseminate knowledge of foreign markets, and promote U.S. products abroad could make sense. In that case, net federal spending could be reduced by charging the beneficiaries of those programs their full cost.

However, fully funding the ITA's trade promotion activities through charges that are voluntary for all beneficiaries may not be possible. For example, in many cases it may be impossible to promote the products of only selected firms in a given industry that want and pay for such promotion without at the same time encouraging demand for the products of all other firms in the industry. In those circumstances, all of the firms have an incentive not to purchase the services because they know that they are likely to receive the benefits whether they pay for them or not. Consequently, if the federal government wanted to charge beneficiaries for the ITA's services, it might have to require that all firms in an industry (or the industry's national trade group) decide together whether to purchase the ITA's services. If the firms decided to purchase them, all firms in the industry would be required to pay according to some equitable formula.

When beneficiaries are not charged the full cost of services, the ITA's activities effectively subsidize the industries involved. Those implicit subsidies are an inefficient means of helping the industries because they

are partially dissipated to foreigners in the form of lower prices for U.S. exports. Because the current-account balance is determined by total saving and investment in the U.S. economy, over which the ITA has no influence, the agency's activities do not improve the current-account balance. As a result of the changes they cause in exchange rates and other variables, all increases in exports resulting from the ITA's activities are completely offset by some mix of reduced exports in other industries and increased imports. Thus, other U.S. firms are hurt by the export promotion activities of the ITA.

DOM-20 ELIMINATE THE ADVANCED TECHNOLOGY PROGRAM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	221	224	224	224	224	1,117
Outlays	22	78	167	223	224	714
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	227	236	242	249	256	1,210
Outlays	23	80	174	237	244	758

Eliminating the Advanced Technology Program (ATP) of the Department of Commerce would save $714 million in outlays over the next five years measured against the 1997 funding level or $758 million relative to the 1997 level adjusted for inflation. Funding current project awards to completion would reduce those savings by about $300 million.

The Omnibus Trade and Competitiveness Act of 1988 established the ATP within the Commerce Department's National Institute of Standards and Technology. The objective of the ATP is to further the competitiveness of U.S. industry by helping convert discoveries in basic research more quickly into technological advancements with commercial potential. The program awards research and development (R&D) grants on the basis of merit to individual companies, independent research institutes, and joint ventures. The grants support research in generic technologies that have applications to a broad range of products, as well as precompetitive research (preceding product development).

The ATP's grants are limited to $2 million over a three-year period when awarded to a single firm, but they have no dollar limit when awarded to a joint venture over a period of up to five years. However, joint ventures must pay at least half of the R&D costs of each project, which acts as a check on a project's commercial viability. The program received its first appropriation, of $10 million, in 1990; by 1994, its appropriation had grown to $200 million. As of the end of 1993, the ATP had selected 89 projects and committed $241 million in funding. The amount of committed funds more than doubled in 1994 as an additional $307 million was awarded to 88 projects. In 1995, $382 million was awarded to 99 projects, and in 1996, $31 million was awarded to four projects.

It is too early to determine the commercial success of projects funded by the ATP because even after a project has ended, more research is required for product development and commercialization. As of September 1993, according to a report by the General Accounting Office (GAO), only four projects had ended (the ATP no longer funds them), and each was deemed successful in that the technology examined was found to be feasible. However, two of those projects were experiencing some difficulties with commercialization. Between September 1993 and April 1995, eight more projects were completed.

Opponents of the program argue that the near tripling of its funding between 1993 and 1994 (from $68 million to $200 million) could have lowered the average quality of winning R&D projects. (If the applicant pool does not increase as dramatically as the program's funding, the award process is likely to be less competitive.) Opponents also question whether the federal government is capable of picking projects with the most potential for technological and commercial success. They note that projects that stand out as clear "winners" might have been funded by the private sector in any case. One privately funded study of the 11 projects supported by the first competition in 1990 suggests that as many as half of them would probably have been undertaken even without ATP support, although at a

lower level of funding. A recent GAO survey brings additional evidence to bear. GAO questioned 89 winners and 34 near-winners that applied for ATP funding between 1990 and 1993. Half of the near-winners continued their R&D projects despite a lack of ATP funding. Of the winners, 42 percent said that they would have continued with their project even without ATP funding, and 41 percent said they would not.

The program's supporters cite evidence from the GAO survey suggesting that the ATP encourages the formation of joint ventures, which increases cooperation among firms and between firms and academic institutions. GAO found that 26 of 34 joint-venture applicants awarded ATP funding had not worked together previously. Proponents of the program also point to the benefits of the ATP's support for research on generic technologies. Firms do not invest heavily in such studies because they cannot fully appropriate the benefits for themselves. (For example, generic technologies are likely to have applications to products developed later by firms that did not invest in the original research.) Because, say advocates, the incentive for firms to invest in that type of research is weak and produces less investment than is socially optimal, government support is desirable.

DOM-21 ELIMINATE THE MANUFACTURING EXTENSION PARTNERSHIP AND THE NATIONAL QUALITY PROGRAM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	95	98	98	98	98	487
Outlays	10	34	44	97	98	283
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	96	103	106	109	111	525
Outlays	10	34	75	103	107	329

The Manufacturing Extension Partnership (MEP) and the National Quality Program reside, along with the Advanced Technology Program (see DOM-20), in the National Institute of Standards and Technology, which is part of the Department of Commerce. MEP consists primarily of a network of manufacturing extension centers that assist small and midsize manufacturing businesses with expertise in the latest management practices and manufacturing techniques, and provide other relevant business knowledge. The centers are nonprofit organizations that are not owned by the federal government but are partly funded by it. Other funding comes from state and local governments, fees for services, and contributions from industry. The National Quality Program consists primarily of the Malcolm Baldridge National Quality Award, which is given to firms for achievements in quality in three categories: manufacturing, service, and small business.

Eliminating MEP and the National Quality Program would reduce outlays by $10 million in 1998 and by $283 million through 2002 measured from the 1997 funding level. It would reduce outlays by $10 million in 1998 and by $329 million over five years measured from the 1997 level adjusted for inflation.

The Manufacturing Extension Partnership. Proponents of MEP point to the economic importance of small and midsize firms and their need for management and manufacturing expertise. Small and midsize manufacturing concerns produce more than half the total value of U.S. production and employ two-thirds of U.S. manufacturing workers. Yet a 1993 report by the National Research Council found that many small firms were operating substantially below their potential. Small firms, it is argued, frequently face limited budgets, lack of in-house expertise, and other barriers to obtaining the type of information that MEP provides. Those circumstances and the substantial reliance of larger manufacturing firms on small and midsize companies for various supplies and intermediate goods, lead proponents of the program to contend that MEP is needed for U.S. productivity and competitiveness in international markets.

Opponents can cite several counterarguments. First, they may question the contention that small manufacturing firms need the government to provide technical assistance. MEP began in 1989; small manufacturing firms thrived long before then, in part because other sources of expertise have been available. For example, many professors of business, science, and engineering are also consultants to private industry, and other ties between universities and private firms facilitate the transfer of knowledge and expertise. In fact, some of the extension programs MEP subsidizes predate the beginning of MEP.

Second, the contention about general U.S. competitiveness is misleading at best. International trade is determined by comparative, not absolute, advantage. Thus, increases in productivity from MEP cannot create an economywide gain in international competitiveness. Firms that are helped by MEP may see their competi-

tiveness improve, resulting in more exports or fewer competing imports. But the alterations that then occur in the demand for the dollar in foreign exchange markets will cause movements in the exchange rate that will decrease the exports of other U.S. firms and increase competing imports for other firms. The balance of trade will not shift--it can be affected only by changes in such macroeconomic variables as aggregate saving and investment.

Finally, one may question the proposition that MEP increases the productivity of the economy. Federal spending for MEP constitutes a subsidy for the firms that are helped by MEP's services. In most cases, subsidies are inefficient: they cause firms to produce products for which the costs of production, including the cost of management and other overhead, are greater than the value of the product as reflected by its price. Furthermore, not all of the benefits of MEP go to U.S. firms and citizens. In the case of small businesses that increase their exports because of MEP's implicit subsidy, part of the subsidy probably goes to foreign customers in the form of lower prices for the products being sold.

The National Quality Program. Advocates defend the National Quality Program with arguments similar to those for MEP: namely, that the program's services increase the international competitiveness of U.S. firms. But opponents can counter that the arguments for the National Quality Program are even weaker than those for MEP. First, businesses need no added incentive to maintain quality--pressure from consumers of their products already provides that encouragement. If lost sales and consequent financial losses are insufficient to impel a firm to maintain or increase the quality of its products, the Malcolm Baldridge Award is unlikely to do so. Second, the same argument about comparative rather than absolute advantage that was applied to MEP also applies to the National Quality Program. Better-quality products can increase the international competitiveness of some U.S. firms but only at the expense of reduced competitiveness for others.

Third, winners of the Baldridge Award frequently mention it in their advertising. That means that firms value the award. If so, they should be willing to pay large enough fees to enter the contest that federal funding of the award could be eliminated.

DOM-22 ELIMINATE THE MINORITY BUSINESS DEVELOPMENT AGENCY

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	23	28	28	28	28	135
Outlays	12	24	28	28	28	120
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	24	30	31	31	32	148
Outlays	12	26	30	31	32	131

The Minority Business Development Agency (MBDA) of the Department of Commerce plays the lead coordinating role in all federal programs for minority business development. Through public/private partnerships, the MBDA provides a variety of direct and indirect business services. It provides management and technical assistance, expands domestic and international marketing opportunities, and collects and disseminates business information. The agency also provides support for advocacy, research, and technology to reduce information barriers.

From 1996 to 1997, budget authority for the MBDA declined from $32 million to $28 million, and outlays declined from $36 million to a projected $31 million. Eliminating the MBDA would reduce outlays by $12 million in 1998 and by $120 million over five years measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, outlays would fall by $12 million in 1997 and by $131 million over five years.

The arguments for and against the MBDA mirror in part those of the larger debate over affirmative action. Proponents contend that minority groups, especially African Americans, have historically been, and continue to be, hindered by pervasive discrimination. They argue that such discrimination leads to financial and educational disadvantage and lack of experience, which means that members of minority groups are less competitive relative to (non-Hispanic) whites in the business world. Discrimination also hinders minority businesses in their task of developing business relationships with suppliers and customers. Minorities, it is argued, need a helping hand to compensate for those unfair handicaps.

Opponents maintain that discrimination is substantially less than it once was and what remains is best fought by enforcing civil rights laws in the courts. Although, on average, African Americans and certain other minority groups are economically and educationally disadvantaged in comparison with whites, in many individual instances the reverse is true: individual African Americans or members of other minorities may be quite wealthy and educated and are competing with individual whites who are not. In such cases, opponents point out, a desire to help the disadvantaged would argue for helping the white person--not the minority group member. It is unfair, so the argument goes, to help current-generation minority individuals at the expense of current-generation whites simply because previous generations of whites benefited from discrimination against previous generations of minorities. Opponents contend that such help should be limited to remedies for specific acts of illegal discrimination that have been proved in court or to general help for anyone who is disadvantaged, without regard to race. If the MBDA was eliminated, the Small Business Administration would continue to provide various kinds of assistance to small businesses in general, although its loans and loan guarantees would be ended under another deficit reduction option in this volume (DOM-18).

DOM-23 ELIMINATE NEW FUNDING FOR THE RURAL RENTAL HOUSING ASSISTANCE PROGRAM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	108	108	108	108	108	540
Outlays	11	68	82	90	96	347
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	111	115	116	119	123	584
Outlays	11	70	87	96	105	369

NOTE: Figures in the table exclude savings in administrative costs.

The Section 515 housing program, administered by the Rural Housing and Community Development Service (RHCDS), provides low-interest, 50-year mortgage loans to developers of multifamily rental projects in rural areas. Those mortgages typically have credits that reduce the effective interest rate to 1 percent and, in turn, lower rental costs for Section 515 tenants.

Under current rules, assisted tenants pay rent equal to the greater of 30 percent of their adjusted income or the minimum project rent. (The minimum project rent for each unit consists of a proportionate share of the amortization costs of the 1 percent mortgage and the project's operating expenses.) The owner of the housing project keeps the minimum rent, and the RHCDS collects any payments above it. Many of the poorest tenants receive additional federal subsidies through the Rural Rental Assistance Payments (RRAP) program, which reduces their rent payments to 30 percent of their income. During 1996, the Section 515 program made $151 million worth of new loans to finance about 1,910 new rental units.

Eliminating all new commitments for assistance under the Section 515 program would reduce federal outlays by about $347 million over the 1998-2002 period measured from the 1997 funding level; that calculation includes $50 million in lower RRAP payments. Savings from the 1997 funding level adjusted for inflation would amount to $369 million over the same period. Additional savings would be realized over time as the cost of administering a shrinking loan portfolio dropped.

Arguing in favor of this option is the inappropriateness of expanding rural rental assistance at a time when many other federal programs are being cut. Also, turnover among current residents of existing projects would ensure that some new income-eligible families would be assisted each year. This option, however, would reduce the proportion of rural families being assisted as the number of eligible families continued to grow. Moreover, growth in the supply of standard-quality, low-income rental projects in rural areas would slow.

DOM-24 ELIMINATE NEW DIRECT LOANS FOR RURAL HOMEOWNERS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	83	83	83	83	83	415
Outlays	68	82	82	82	82	396
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	85	87	90	92	95	449
Outlays	70	86	89	91	94	430

NOTE: Figures in the table exclude savings in administrative costs.

The Section 502 housing program, administered by the Rural Housing and Community Development Service (RHCDS), provides subsidized mortgages to low-income rural borrowers, many of whom live in areas that have a shortage of private mortgage funds. Generally, eligible borrowers may purchase homes by agreeing to pay a minimum percentage of their income to cover principal, interest, property taxes, and insurance for the full term of the loan, usually 33 years. In the past, that percentage of income was 20 percent, but for new borrowers today, it ranges from 22 percent to 26 percent, depending on the borrower's income. The effective interest rate on loans can amount to as little as 1 percent.

The federal cost of the program includes the difference between the RHCDS's cost of borrowing and the lower interest rates it charges homeowners, as well as the costs associated with any future defaults on the loans. During 1996, roughly 15,900 rural households purchased single-family homes with loans from the RHCDS at reduced rates of interest. The total value of all new Section 502 direct loans in 1996 was about $1 billion.

If new direct loans under the Section 502 program were eliminated, federal outlays would be reduced by $396 million over the 1998-2002 period compared with the 1997 funding level. Savings from the 1997 level adjusted for inflation would amount to $430 million over the period. The federal government would realize additional savings over time as the federal cost of administering the shrinking loan portfolio decreased.

Supporters of this option suggest that the current program may not be the best use of scarce federal resources. It makes sizable payments to relatively few households that have low income but that are better off than many households receiving no assistance. If this option was enacted, however, many low-income rural households would face added difficulties in both finding sources of lending and affording the interest rates they would be charged.

DOM-25 REDUCE FEDERAL AID FOR MASS TRANSIT

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority[a]	2,607	2,657	2,708	2,761	2,815	13,548
Outlays	332	783	1,201	1,493	1,735	5,544
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority[a]	2,626	2,697	2,770	2,845	2,922	13,860
Outlays	340	812	1,262	1,595	1,890	5,899

a. Budget authority includes mandatory contract authority specified in law.

In 1997, the principal federal transit assistance programs will provide about $3.8 billion in capital grants and about $0.5 billion in operating assistance to local mass transit agencies. Federal grants generally pay 80 percent of the costs of qualifying capital projects and offset up to 50 percent of local transit system operating deficits. In 1991, federal capital grants accounted for about 55 percent of all public capital spending for mass transit, and federal operating subsidies offset roughly 5 percent of the operating costs of transit systems nationwide.

The federal transit program is authorized through 1997 under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). In considering proposals for reauthorizing ISTEA, the Congress may explore a variety of options, including providing block grants for highways and transit and reducing spending. This option provides one approach to reducing spending: cutting the federal share of costs for qualifying investments in mass transit to 50 percent (as well as reducing funding by a corresponding amount) and eliminating operating assistance. Doing that would save $332 million in 1998 and $5.5 billion over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, savings would be $340 million in 1998 and $5.9 billion over the five-year period.

Proponents of this option point out that the large federal shares of investment spending and the subsidies for operating assistance appear to have had little effect on either transit productivity or the use of mass transit services. Despite modernization of transit systems, only 5.5 percent of journeys to or from work are made by mass transit. Transit agencies serve mainly downtown areas, whereas most of the growth in urban travel has been in the suburbs. At the same time, inflation-adjusted labor costs per mile of transit travel rose by 60 percent during the 1970s, when overall assistance levels were highest. Reducing the federal share of capital costs for mass transit might improve local investment choices, as a similar reduction seems to have done in the case of federal subsidies for construction of local wastewater treatment plants. Similarly, ending operating assistance could encourage local authorities to make better use of existing capital by improving services, using more cost-effective, smaller vehicles, or taking other steps to lower the operating costs of transit services.

Opponents argue, however, that reducing federal transit subsidies could harm some local transit services. The burden of diminished services would be borne disproportionately by people who were especially dependent on public transportation: the poor, the young, the elderly, and the disabled. Moreover, any reduction

in transit service would occur just as the Clean Air Act of 1990 and ISTEA were placing increased pressure on states and localities to reduce their reliance on automotive transportation. Finally, an across-the-board cut in transit subsidies would be less efficient than targeted reductions, since certain transit investments, such as the rehabilitation of rail transit in older cities, could have a higher payoff.

DOM-26 ELIMINATE THE INTELLIGENT TRANSPORTATION SYSTEMS PROGRAM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority[a]	233	233	233	233	233	1,165
Outlays	40	161	196	208	215	820
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority[a]	239	246	252	259	266	1,262
Outlays	41	166	207	224	237	875

a. Budget authority includes mandatory contract authority specified in law.

The Intelligent Transportation Systems (ITS) program is a research, development, testing, evaluation, and deployment program to improve travel on mass transit and highways by using advanced computer, communications, and sensor technologies. It was authorized under the Intermodal Surface Transportation Efficiency Act of 1991, which expires at the end of 1997.

The Congress provided $233 million for the ITS program in 1997. If the program was eliminated (and unobligated balances rescinded), budgetary savings would be $40 million in 1998 and $820 million over the 1998-2002 period compared with the 1997 funding level. Savings would be $41 million in 1998 and $875 million over the 1998-2002 period compared with the 1997 level adjusted for inflation.

By sponsoring substantial research and development and operational tests, the ITS program has helped make state and local officials aware of high-tech solutions to transportation problems. For example, using advanced technologies to speed the flow of traffic is far less costly than constructing additional roadways. Federal highway officials estimate that equipping one mile of freeway with electronic traffic surveillance costs about $1 million, but constructing one mile of urban freeway costs about $40 million. Eliminating the ITS program risks cutting short research and testing that could yield large savings in highway and transit costs.

The federal ITS program has been criticized, however, for having a scattershot approach to project funding and for not sufficiently evaluating the results of its research and identifying the most promising applications. Moreover, decisions about whether to adopt new transportation technologies lie primarily with state and local officials and with the private sector, and those parties have greater incentives than the federal government does to pursue applications that offer the greatest savings in costs.

Eliminating the ITS program as a separate activity would not necessarily mean eliminating ITS projects. It would merely put those projects into competition with other transportation research efforts. One variation on this option would be to retain some of the existing ITS funding but transfer it to the general highway research and development account. Total savings for this option would be reduced by the amount of any such transfer.

DOM-27 ELIMINATE THE OPERATING SUBSIDY FOR AMTRAK

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	223	223	223	223	223	1,115
Outlays	223	223	223	223	223	1,115
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	228	234	241	247	254	1,204
Outlays	228	234	241	247	254	1,204

Last year, the Congress considered several proposals for reducing federal subsidies for the National Railroad Passenger Corporation (also known as Amtrak). Time ran out before the Congress could pass legislation to reauthorize or fundamentally overhaul Amtrak. The transportation appropriation act cut funding for Amtrak, but the Omnibus Consolidated Appropriations Act replenished some of that funding. The 105th Congress will most likely revisit the question of Amtrak subsidies.

The federal government now provides Amtrak with subsidies of about $223 million a year for operating expenses, in addition to $142 million for mandatory passenger rail service payments, $223 million in capital grants, and $175 million for the Northeast Corridor Improvement Program. Eliminating the operating subsidy could save $223 million in 1998 and $1.1 billion over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, savings would be $228 million in 1998 and $1.2 billion over the five-year period.

When the Congress established Amtrak in 1970, it expected to provide subsidies only for a limited time, until Amtrak could become self-supporting. Instead of declining, however, federal subsidies rose steadily in the 1970s to nearly $1 billion in 1981. The Administration then proposed substantial cuts in federal funding. Amtrak subsequently raised fares and reduced costs, and subsidies have declined. Eliminating the operating subsidy would force Amtrak to intensify its efforts to cut costs and expand revenues.

Proponents of cutting subsidies argue that passenger rail service should compete on a level playing field with other modes of transportation--without the advantage of federal subsidies. Rail service in that case would have to become more efficient. Proponents also question the fairness of subsidizing the travel of business people, who make up a substantial share of Amtrak's passengers.

Opponents of cutting subsidies say that reducing federal support would lead Amtrak to cancel service on lightly traveled routes and that passengers in those areas might not have alternative transportation available. They also note that subsidizing rail service in congested areas may be justified as a way of offsetting the costs of congestion in travel by highway or air. Retaining federal subsidies for the Northeast Corridor Improvement Program may help to redress that imbalance. Finally, some Amtrak supporters claim that in the absence of operating subsidies, the entire system would have to shut down. If bankruptcy occurred, it is unclear what role the federal government would play in paying off Amtrak's liabilities, such as labor protection payments. In addition, because Amtrak contributes to the Railroad Retirement system, bankruptcy could hamper payments to current retirees. The estimates provided for this option do not include any potential impact for associated labor costs.

DOM-28 ELIMINATE AIRPORT GRANTS-IN-AID

	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
	From the 1997 Funding Level					
Budget Authority[a]	2,347	2,410	2,476	2,542	2,611	12,386
Outlays	263	876	1,183	1,329	1,401	5,052
	From the 1997 Funding Level Adjusted for Inflation					
Budget Authority[a]	2,347	2,410	2,476	2,542	2,611	12,386
Outlays	269	905	1,244	1,427	1,541	5,386

a. Budget authority is mandatory contract authority specified in law.

Under the Airport Improvement Program (AIP), the Federal Aviation Administration (FAA) provides airports with grants for expanding capacity and improving terminals. About half of the grant money is apportioned by formula. The other half is considered discretionary, although the Congress has imposed some restrictions on its allocation. Over the past decade, about two-thirds of AIP funding has gone to primary, commercial service airports; about one-quarter has gone to general aviation and reliever airports; and the rest has been divided among other special programs. Eliminating those grants would result in savings of $263 million in 1998 and about $5.1 billion over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, savings would be $269 million in 1998 and nearly $5.4 billion over the five-year period.

Recent trends in aviation have increased the importance of larger airports (as measured by the number of embarking passengers). If airport grants were eliminated, those airports would have little trouble financing capital improvements from the fees they collect or the additional bonds they could issue. In 1991, the Congress passed legislation allowing airports to levy passenger facility charges of up to $3 per passenger. By the end of 1995, the FAA had approved such charges at more than half of the eligible major airports. Those charges can supplement the revenues received from concessionaire rents, landing fees, and airline lease payments and, unlike federal grants, can be used to pay the interest on bonds issued by the airport. In 1995, passenger facility charges yielded revenues of about $1 billion.

Small reliever airports have been financed by the FAA in the expectation that they would draw general aviation aircraft away from major airports. To date, they have not done so. Thus, some critics would argue against providing federal subsidies to those airports.

Supporters of the current program argue that the benefits provided by the system of airports are nationwide in scope. They also argue that more assistance is needed to overcome airport congestion and to allow airports to construct new gates and terminals. Those improvements will promote competition among airlines, with benefits accruing to passengers.

DOM-29 ELIMINATE THE ESSENTIAL AIR SERVICE PROGRAM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority[a]	39	40	41	42	42	204
Outlays	21	26	26	26	25	124
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority[a]	39	40	41	42	42	204
Outlays	21	27	28	29	29	134

a. Budget authority is mandatory contract authority specified in law.

The Essential Air Service (EAS) program was created by the Airline Deregulation Act of 1978 to continue air service to communities that had received federally mandated air service prior to deregulation. The program provides subsidies to air carriers serving small communities that meet certain criteria. Subsidies currently support air service to 72 communities exclusive of Alaska (to which separate rules apply), with about 600,000 passengers served annually. The subsidy per passenger ranges from $4 to nearly $404. The Congress has directed that such subsidies not exceed $200 per passenger unless the community is more than 210 miles from the nearest large or medium-size hub airport.

This option would eliminate only the discretionary EAS program. In the Federal Aviation Reauthorization Act of 1996, the Congress instructed the Federal Aviation Administration to establish and collect up to $100 million in user fees for air traffic control services. Beginning in 1998, $50 million of those fees will be made available to the EAS program. The collection and spending of the fees is treated as direct spending. The new spending from those fees would not be affected by eliminating the original program.

EAS outlays for 1996 were $22 million. If the program was eliminated, budgetary savings would be $21 million in 1998 and $124 million over the 1998-2002 period measured against the 1997 funding level, or $21 million in 1998 and $134 million over the 1998-2002 period measured against the 1997 level adjusted for inflation. To mitigate disruptions from eliminating the program, it could be phased out over several years. Total budgetary savings would depend on the speed of the phaseout.

Critics of the EAS program contend that the subsidies are excessive, providing air transportation at a high cost per passenger. They also maintain that the program was intended to be transitional and that the time has come to phase it out. Air transportation to small communities is not a vital part of the national transportation system. If states or communities derive benefits from that service, they could provide subsidies themselves. The Congress has called for states, local governments, and other entities to begin pursuing cost-sharing mechanisms in anticipation of a cost-sharing requirement of 50 percent in 1997.

Supporters of the subsidy program claim that it prevents the isolation of rural communities that would not otherwise receive air service. Subsidies are not available for service to communities located less than 70 miles from a large or medium-size hub airport (except in Alaska). The availability of airline transportation is an important ingredient in the economic development of small communities. Without continued air service, according to some proponents, some towns might lose a sizable portion of their economic base.

DOM-30 ELIMINATE NASA'S SUPPORT FOR PRODUCERS AND USERS OF COMMERCIAL AIRLINERS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	678	782	782	782	782	3,806
Outlays	143	378	546	652	727	2,446
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	688	814	835	858	881	4,076
Outlays	147	392	573	695	789	2,596

The National Aeronautics and Space Administration (NASA) funds the development of technology and systems intended for use in commercial airliners--both subsonic and supersonic--with the explicit objective of preserving the U.S. share of the current and future world airliner market. This option would end funding for activities related to advanced subsonic technology, high-speed research, and construction of national aeronautical facilities. (Eliminating funding for the latter would require rescinding the $365 million advance appropriation available in 1998.) Those cuts would reduce outlays by $143 million in 1998 and $2.4 billion from 1998 through 2002 compared with extending the 1997 funding level. Compared with the 1997 funding level adjusted for inflation, outlays would decline by $147 million in 1998 and $2.6 billion through 2002.

The industry that produces large commercial aircraft is among the nation's most significant when measured by value of shipments, employment, or export sales. Two U.S. firms, Boeing and McDonnell Douglas, account for all of the nation's final sales of large commercial aircraft, but many other aerospace and nonaerospace businesses supply components to those firms. Along with the European-based Airbus Industrie, the two U.S. producers dominate the world market for large commercial aircraft (although McDonnell Douglas's share is significantly smaller than Boeing's). Last December, Boeing and McDonnell Douglas announced plans to merge into a single company, which would retain the Boeing name. If the proposed merger takes place, Boeing will account for about two-thirds of all deliveries of commercial airliners with 115 or more seats.

NASA holds that the federal support offered in its Advanced Subsonic Technology Program--$174 million in 1997--is necessary to maintain the current U.S. share of the global market for subsonic aircraft. The program explores technologies that would make possible a new generation of commercial airliners that are safer, use less fuel, pollute less, and are cheaper to operate than aircraft now available. In recent years, NASA has increased the program's focus on technologies that could increase the capacity and safety of the air traffic control system. Program resources are also directed at technologies that could safely extend the lives of existing aircraft.

NASA's High-Speed Research effort, funded at $243 million in 1997, is a second conduit of support for the producers of commercial airliners. That program has two phases. Phase I is devoted to developing technologies that mitigate the atmospheric and noise effects of supersonic flight. Phase II, a cooperative venture with U.S. industry, is devoted to "high-leverage" technologies necessary for the economic viability of future supersonic commercial jet airplanes. NASA justifies the supersonic part of its aeronautical research and technology program the same way it justifies the pro

gram's subsonic component: the agency needs to support U.S. businesses that produce large commercial aircraft for the world market.

As part of its research program, NASA had considered building the National Aeronautics Facility, which would house two state-of-the-art wind tunnels, one subsonic and the other transonic, for use in testing commercial airliner designs. In 1994, the Congress authorized an advance appropriation as a down payment on estimated construction costs of $2.5 billion, but it required the President to satisfy various requirements before the program could go forward. Those requirements included providing a plan for sharing costs with industry and various federal agencies and a list of programs within NASA that could be cut or eliminated to fund construction of the facility. In 1996, the Administration concluded that the complex was not affordable under current budget constraints. After completing a systems design review in June 1996, NASA phased out the program. However, the advance appropriation has yet to be rescinded.

The case for eliminating federal support to U.S. producers of commercial airliners rests on the notion that the applied and systems-oriented research and development (R&D) necessary to maintain U.S. market share is a private rather than a public responsibility. The owners and employees of aircraft companies benefit from success in the world market; accordingly, they should shoulder the burden of paying for the R&D necessary to produce better aircraft. The fact that the investments needed to develop, produce, and market a new commercial aircraft are very large--$8 billion to $10 billion by some estimates--and that the development of new aircraft requires many years should have little bearing on whether the public or private sector pays the cost of producing the necessary technologies.

Although a case can be made for federal support of R&D that ultimately benefits private businesses and is consistent with an economically efficient allocation of resources, it applies only weakly, or not at all, to the production of large aircraft. The benefits from the R&D supported by the NASA programs in question fall almost exclusively to aircraft manufacturers, their suppliers, and airlines. Left to their own devices, those parties should spend enough on the type of R&D supported by the NASA programs to leave society and themselves in the best position possible. Moreover, the type of research that is likely to be underfunded from society's point of view is supported by other NASA spending on aeronautical research and technology--$404 million in 1997.

The case for continued support of these programs is based largely on the unique competitive features of the market for large commercial aircraft. The United States and the European Union are parties to a bilateral agreement permitting public support for the development of commercial airliners. If the federal government failed to grant U.S. producers support comparable with that being provided by the governments of European competitors, opponents of this option would argue, U.S. producers would find themselves at a severe disadvantage in the global market.

A second argument for continuing NASA's expenditures on these programs is that limitations on noise levels and atmospheric pollutants impose an unfunded federal mandate on aircraft producers and airlines. Federal funds spent for research on noise and pollution abatement, as opposed to spending directed toward enhancing the economic viability of commercial aircraft, might be justified on the grounds that those funds cover a cost imposed on the industry by federal law. The force of that argument is diminished, however, to the extent that noise and atmospheric pollutants generated by jet air travel are unpaid "costs" that air travelers impose on the public at large. From that point of view, it is appropriate that aircraft producers, airlines, and, ultimately, air travelers pay the full social cost of their activities--including the cost of R&D that is directly applied to current and future jet aircraft.

DOM-31 ELIMINATE CARGO PREFERENCES

	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
	From the 1997 Funding Level					
Budget Authority	216	266	317	367	418	1,584
Outlays	154	238	295	346	397	1,430
	From the 1997 Funding Level Adjusted for Inflation					
Budget Authority	221	279	341	406	477	1,724
Outlays	157	250	315	381	450	1,553

The Cargo Preference Act of 1904 and other laws require that U.S.-flag vessels carry certain government-owned or government-financed cargo that is shipped internationally. Eliminating cargo preferences would lower federal transportation costs by allowing the government to ship its cargo at the lowest available rates. That would lower the need for discretionary appropriations. Between 1998 and 2002, ending cargo preferences would save $1.4 billion compared with maintaining the 1997 funding level. Savings from the 1997 funding level adjusted for inflation would total $1.6 billion over the same period. Roughly 75 percent of those savings would come from defense discretionary spending, with the other 25 percent from nondefense discretionary spending.

Four federal agencies--the Department of Defense (DoD), the Department of Agriculture (USDA), the Agency for International Development (AID), and the Department of Energy (DOE)--account for about 97 percent (by weight) of the government shipments subject to cargo preference laws. The preferences apply to nearly all DoD freight, three-quarters of the USDA's food-aid shipments, foreign assistance associated with AID, and oil shipments for DOE's Strategic Petroleum Reserve. On average, cargo preference laws boosted the government's transportation costs by $710 million a year between 1989 and 1993. Excluding costs associated with the 1991 Persian Gulf War, that figure still comes to an estimated $578 million per year. (Eliminating cargo preferences now would save less than that because the amount of cargo subject to the preference laws has decreased in recent years.)

Supporters of cargo preferences argue that they promote the economic viability of the nation's maritime industry and are directly responsible for some 6,000 U.S. jobs. That industry has suffered at the hands of foreign competition in recent decades. Under federal law, U.S. mariners must crew U.S. vessels, and in general, U.S. shipyards must build them. Because U.S.-flag vessels face higher labor costs and greater regulatory responsibilities than foreign-flag vessels, they generally charge higher rates.

Increased competition from foreign fleets partly accounts for the dwindling size of the U.S. merchant fleet. At the end of World War II, for example, about 40 percent of the world's commercial fleet was under the U.S. flag, and those vessels handled over 40 percent of the world's ocean-shipping trade. By the early 1990s, the number of U.S. vessels had dropped by about 80 percent, and they handled just 4 percent of ocean-borne foreign commerce. Without the guaranteed business from cargo preferences, up to two-thirds (by tonnage) of the roughly 155 U.S.-flag vessels still engaged in international trade would leave the fleet, according to a 1994 estimate by the General Accounting Office. They would do so either by reflagging in a foreign country to save money or by decommissioning if they could not operate competitively.

Supporters of cargo preference laws also say they help bolster national security by ensuring that U.S.-flag vessels and U.S. crews are available during wartime. During the Persian Gulf War, for example, U.S.-flag ships carried roughly three-quarters of the sustainment cargo--food, clothing, and ammunition--shipped toward the war zone. (Personnel then transferred much of the cargo from U.S.-flag ships to smaller feeder ships at European and Asian ports for transport directly to the conflict.)

Finally, proponents of cargo preferences argue that eliminating them could cause U.S. ship operators and shipbuilders to default on loans guaranteed by the government's Maritime Administration, which would raise mandatory spending. However, the Congressional Budget Office estimates that such defaults could increase mandatory spending by only about $10 million over the next several years. That amount would not significantly affect the savings estimated for this option.

On the other side, critics of cargo preference laws say they represent a subsidy of private industry by taxpayers. That subsidy equals about $1.8 million per ship, or about $48,000 per job, each year. With the substantial decline in the U.S. merchant marine, critics say, cargo preferences simply help a handful of carriers preserve their market share and market power.

Opponents of cargo preference laws also point out that even DoD officials question the national security importance of the merchant marine fleet. Commercial container ships are not necessarily useful in mobilizing troops for war because they are not equipped to carry, load, or unload tanks, trucks, or helicopters. As a result, DoD has invested in its own fleet specifically to transport military equipment. It also contracts with foreign-flag ships when needed. During the Persian Gulf War, military ships clearly dominated equipment deliveries; only a small fraction of the approximately 500 cargo ships sailing into the war zone during the conflict were U.S. commercial vessels. Opponents of cargo preferences believe that the future availability of military and foreign-flag ships would be adequate for the nation's wartime needs.

In addition, critics of the laws argue that the U.S. government is at a competitive disadvantage in selling surplus farm commodities abroad because the cargo preference laws force it to pay higher transportation costs.

DOM-32 ELIMINATE CERTAIN RURAL DEVELOPMENT PROGRAMS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Eliminate Direct Loans and Loan Guarantees						
From the 1997 Funding Level						
Budget authority	109	109	109	109	109	545
Outlays	13	37	68	86	101	305
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	112	115	118	121	124	590
Outlays	13	38	71	92	109	323
Eliminate Grants						
From the 1997 Funding Level						
Budget authority	550	550	550	550	550	2,750
Outlays	20	116	263	402	490	1,291
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	563	579	594	610	627	2,973
Outlays	20	119	273	423	525	1,360

The Department of Agriculture assists rural communities through a variety of programs. With the enactment of the Department of Agriculture Reorganization Act of 1994, the Rural Development Administration (RDA) transferred its functions to the Rural Housing Service, the Rural Utilities Service, and the Rural Business Service. In general, the programs provide loans, loan guarantees, and grants for rural water and waste disposal projects, community facilities, rural development, and fire protection. Funds are generally allocated among the states based on rural population and the number of rural families with income below the poverty threshold. Within each state, funds are awarded competitively to eligible applicants, including state and local agencies, nonprofit entities, and (in the case of loan guarantees for business and industry) for-profit organizations.

The amount of interest that loan applicants pay varies with the type of aid they receive and, in some programs, with the economic condition of the area. For example, for rural water and waste disposal loans, interest rates can range from 4.5 percent to market rates, depending on the median family income in the service area. If repayment of a loan would impose an undue financial burden on the residents of relatively poor areas, those areas may receive grants instead.

From amounts appropriated for 1997, the Administration has allocated $109 million in budget authority to support the costs of nearly $1.7 billion in combined direct loans and loan guarantees. Under credit reform, those costs include the present value of interest subsidies and the cost of loans that go into default. In addition, the Administration allocated $550 million for grants, of which $494 million was for water and waste disposal. Eliminating the loan programs would reduce federal outlays for subsidizing direct loans and loan guarantees by $305 million over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, savings would be $323 million over the same period. Additional savings would be realized gradually as the costs of administering a shrinking portfolio decreased. Measured from the

1997 funding level, savings in outlays from eliminating grants would total about $1.3 billion from 1998 through 2002; adjusted for inflation, savings would be $1.4 billion.

One argument for terminating these programs is that federal funds should be directed toward activities whose benefits are national in scope, with state and local governments funding rural development. Moreover, studies by the General Accounting Office and the Center for Community Change found that two of the largest programs--the water and waste disposal program and the business and industry guaranteed loan program--were not well targeted toward low-income or distressed communities. Communities with higher incomes or lower unemployment (or both), the studies found, were more likely to receive assistance than communities with low incomes or higher unemployment.

Supporters of federal funding of rural development programs argue that, by sparking economic growth, the programs help to increase rural incomes. Eliminating those funding sources would probably reduce economic development activities because private credit simply might not be available in some areas. In addition, many fiscally distressed states and localities would be unable to offset the loss of federal grants and interest subsidies.

DOM-33 ELIMINATE THE ECONOMIC DEVELOPMENT ADMINISTRATION

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	321	329	329	329	329	1,637
Outlays	16	87	159	251	318	831
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	329	346	356	365	375	1,771
Outlays	16	90	166	265	340	877

The Economic Development Administration (EDA), an agency within the Commerce Department, provides grants to state and local governments for public works, technical assistance, defense conversion activities, and job programs, as well as loan guarantees to firms for business development. For 1997, appropriations for EDA programs total $329 million. Eliminating the EDA would reduce federal outlays by about $16 million in 1998 and $831 million over the 1998-2002 period measured against the 1997 funding level. Measured against the 1997 level adjusted for inflation, savings would be $16 million in 1998 and $877 million over the five-year period.

Critics of EDA programs have argued that federal assistance should not be provided for activities whose benefits are primarily local and that therefore should be the responsibility of state and local governments. In addition, EDA programs have been criticized for substituting federal credit for private credit and for facilitating the relocation of businesses from one distressed area to another through competition among communities for federal funds. Opponents have also cited the EDA's broad eligibility criteria, which together take in an area containing 80 percent of the U.S. population, and its record of providing aid with little proven effect compared with other programs having similar goals.

Because of the competitive nature of EDA grants, local governments do not incorporate that type of aid into their budget plans; hence, eliminating future EDA funding would not impose unexpected hardships on communities. Some of the reduction in aid associated with this option would, however, curtail economic development activities in financially distressed communities that have no other available resources. That cutback could result in the deterioration of infrastructure, the loss of prospective jobs, and decreases in local tax receipts in those areas.

DOM-34 ELIMINATE THE APPALACHIAN REGIONAL COMMISSION

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	159	160	160	160	160	799
Outlays	8	43	78	123	155	407
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	163	169	173	178	182	865
Outlays	8	44	82	130	166	430

The federal government provides annual funding to the Appalachian Regional Commission (ARC) for activities that promote economic growth in the Appalachian counties of 13 states. For 1997, the Congress appropriated $160 million for the ARC. The states are responsible for filing development plans and for recommending specific projects for federal funding. The commission distributes the funds competitively, based on such factors as the area's growth potential, per capita income, and rate of unemployment; the financial resources of the state and locality; the prospective long-term effectiveness of the project; and the degree of private-sector involvement.

The ARC supports a variety of programs, including the Appalachian Development Highway System, to open up areas with development potential; the Community Development Program, primarily to create jobs; the Human Development Program, to improve rural education and health; and the Research and Local Development District Programs, to provide planning and technical assistance to multicounty organizations. Federal funds also support 50 percent of the salaries and expenses of the ARC staff. Discontinuing the programs funded through the ARC would reduce federal outlays by $8 million in 1998 and by $407 million over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, savings would be $8 million in 1998 and $430 million over the five-year period.

Those in favor of termination argue that the programs supported by the ARC duplicate activities funded by other federal agencies, such as the Department of Transportation's federal highways program and the Department of Housing and Urban Development's Community Development Block Grant program. Critics of the ARC also contend that although it allocates resources to poor rural communities, those areas are no worse off than many others outside the Appalachian region and therefore no more deserving of special federal attention.

Nevertheless, eliminating federal funding of the ARC programs would reduce economic development activities in the region, because the fiscal distress of many states and localities would probably preclude their offsetting that loss of resources. Thus, fewer jobs might be created, and rural infrastructure, education, and health care conditions might suffer in that area of the country.

DOM-35 ELIMINATE OR RESTRICT COMMUNITY DEVELOPMENT BLOCK GRANTS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Eliminate the CDBG Program						
From the 1997 Funding Level						
Budget authority	4,600	4,600	4,600	4,600	4,600	23,000
Outlays	184	1,794	3,312	4,462	4,600	14,352
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	4,715	4,844	4,973	5,106	5,244	24,882
Outlays	189	1,844	3,450	4,722	4,990	15,195
Restrict Eligibility and Reduce Funding						
From the 1997 Funding Level						
Budget authority	920	920	920	920	920	4,600
Outlays	37	359	662	892	920	2,870
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	1,035	1,164	1,293	1,426	1,564	6,482
Outlays	41	409	801	1,152	1,310	3,713

The Community Development Block Grant (CDBG) program provides annual grants, by formula, to eligible metropolitan cities and urban counties through what is referred to as its entitlement component. Under the formula, jurisdictions with greater needs (as measured by factors such as population, poverty levels, and housing conditions) receive larger grants than those with lesser needs. The program also allocates funds, by formula, to each state. Those funds are distributed among nonentitlement areas, typically through a competitive process. Nonentitlement areas generally are units of local government that have populations under 50,000 and that are not metropolitan cities or parts of urban counties.

Community Development Block Grants in general must be used to aid low- and moderate-income households, to eliminate slums and blight, or to meet emergency needs. In accomplishing those goals, they may be used for a wide range of community development activities, including rehabilitation of housing, improvement of infrastructure, and economic development. Funds from the entitlement component may also be used to repay principal and interest on obligations that are issued by local governments to finance certain activities--such as the acquisition or rehabilitation of public property--and that are guaranteed by the federal government under the Section 108 loan guarantee program.

For 1997, the appropriation for the CDBG program amounts to $4.6 billion. Of that total, $3 billion is allocated to metropolitan cities and urban counties, and $1.3 billion goes to nonentitlement government units; the remainder is earmarked for specific purposes described in the appropriation act. Substantial federal savings could be realized either by terminating the CDBG program or by restricting eligibility for the entitlement component--to exclude the least needy jurisdictions--and reducing funding levels. Least needy jurisdictions could be defined by measuring relative economic well-being and fiscal capacity using factors such as the number and percentage of families below the poverty level and per capita income.

Eliminate the CDBG Program. If the CDBG program was eliminated, savings in federal outlays would amount to around $184 million in 1998 and almost $14.4 billion over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, savings would be $189 million in 1998 and $15.2 billion over the five-year period.

One argument for terminating the program is that federal funds should be targeted toward programs whose benefits are national rather than local. Accordingly, programs such as the CDBG program, which generate primarily local benefits, should be funded by state and local governments. Moreover, to the extent that local jurisdictions use CDBG funds to help them compete against each other to attract business, benefits are shifted away from local jurisdictions to private firms. Yet, without the CDBG program, a number of its activities would not be undertaken by most local governments--particularly the rehabilitation of low-income housing and, to some extent, economic development. Since the CDBG program is the largest source of federal aid for many cities, fewer resources would be available for low-income households. Furthermore, CDBG funding has presumably been figured into the budgets of entitlement recipients. Ending that support could impose at least temporary stress on many governments, some of which continue to experience fiscal difficulties.

Restrict Eligibility and Reduce Funding. If the entitlement component of the program was cut by 20 percent, federal outlays could be reduced by $37 million in 1998 and $2.9 billion over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, savings would be $41 million in 1998 and $3.7 billion over the five-year period. One way of achieving such a cut would be to eliminate funding for a sufficient number of the least needy jurisdictions. A cutback of that kind would effectively increase the proportion of funds going to the nonentitlement component from 30 percent to 35 percent, but the typically competitive nature of the distribution process would presumably ensure that those funds would be targeted toward the neediest areas. Carrying out this option would require both a change in the authorizing legislation and a cut in the program's annual appropriation.

An argument in favor of such a cutback is that no pressing interest is served by supporting jurisdictions that have above-average ability to fund projects themselves. For example, 15 of the 20 counties that had the highest per capita income in the nation in 1989 received funds in 1993 under the CDBG entitlement component. Eliminating funding for that type of jurisdiction, rather than reducing grants across the board, would ensure that the most distressed jurisdictions retained the same level of aid. However, a reduction in federal funds for affluent jurisdictions would probably curtail activities designed to aid low- and moderate-income households in any pockets of poverty in those areas, because local governments would probably not completely offset the reduction.

DOM-36 ELIMINATE FEDERAL SUPPORT FOR TENNESSEE VALLEY AUTHORITY ACTIVITIES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	81	106	106	106	106	505
Outlays	32	87	105	106	106	436
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	85	114	118	122	126	565
Outlays	34	92	114	119	123	482

The Tennessee Valley Authority (TVA) is a federal agency that operates an electric utility with billions of dollars in annual sales. It is also charged with "planning for the proper use, conservation, and development of the natural resources of the Tennessee River drainage basin." The annual federal appropriation for the TVA supports its water and land management activities (including maintaining a system of dams and reservoirs), its environmental research center, its recreational and educational programs, and its efforts to assist local economic development. Recently, TVA Chairman Craven H. Crandall Jr. proposed eliminating the federal appropriation in exchange for new authority allowing the TVA to sell electricity outside its current service area.

In 1997, the TVA anticipates spending $124 million on those non-power-generating activities, financed by $106 million from federal appropriations, $12 million from purchasers of TVA electricity, and $6 million from user fees, timber sales, and other sources. Eliminating the activities that the annual appropriation supports, except those activities whose costs could be shifted to nonfederal sources, would reduce federal outlays by about $32 million in 1998 and $436 million over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, outlays would be reduced by $34 million in 1998 and $482 million over the five-year period.

In recent years, the TVA has used the largest chunk of its appropriation for water and land management. Eliminating federal support for those activities accounts for 66 percent of the total savings in this option. The main argument for cutting that funding is that the activities should be financed regionally by state and local governments or by charging their beneficiaries fees--or discontinued if they are insufficiently valuable. Proponents of maintaining federal funding note that the TVA has a federally mandated mission to promote the proper use, conservation, and development of the region's natural resources as well as its economic well-being. They also argue that some benefits of the management activities, such as reductions in flood crests and improvements in ecological stability, are distributed very broadly or accrue in part to future generations. Funding the activities underlying those benefits through fees levied on the beneficiaries is therefore difficult.

Fourteen percent of the savings in this option come from eliminating funding for the TVA's Environmental Research Center in Muscle Shoals, Alabama. Past research at the center (formerly, the National Fertilizer and Environmental Research Center) developed 75 percent of the fertilizers in use today. The center's current program includes research in ozone mitigation, pollution-free agriculture, utility waste management, and biotechnology for cleaning up hazardous wastes.

Critics of the center argue that many of its research projects benefit the private sector and that other projects should be consolidated with research being conducted by the Department of Agriculture or the Environmental Protection Agency. Supporters of continued funding note that the center has refocused its efforts (eliminating the projects in fertilizer research and devel-

opment) and increased its use of external funding from other federal agencies and the private-sector Electric Power Research Institute. They also argue that the center is uniquely positioned to develop solutions that reflect a large region's environmental, economic, and social needs.

The remaining 20 percent of savings projected from this option result from withdrawing federal funding for the TVA's programs in recreation, environmental education, and local economic development. The broad argument against federal funding of those programs is that their benefits are largely regional. Funding should therefore be provided by state or local governments or through fees levied on private beneficiaries. Supporters of continued funding again point to the TVA's federally mandated mission and to the difficulty that state and local governments could have in apportioning the costs of collectively valuable programs in the absence of federal funding.

DOM-37 ELIMINATE THE NEIGHBORHOOD REINVESTMENT CORPORATION

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
	From the 1997 Funding Level					
Budget Authority	50	50	50	50	50	250
Outlays	50	50	50	50	50	250
	From the 1997 Funding Level Adjusted for Inflation					
Budget Authority	51	53	54	56	57	271
Outlays	51	53	54	56	57	271

The Neighborhood Reinvestment Corporation (NRC) is a public, nonprofit organization charged with revitalizing distressed neighborhoods. The NRC oversees a network of locally initiated and locally run groups called NeighborWorks® organizations, also known as NWOs, which engage in a variety of housing, neighborhood revitalization, and community-building activities. The corporation provides technical and financial assistance to begin new NWOs; it also monitors and assists existing members of the network. As of 1996, the NeighborWorks® Network had 171 NWOs as members. They operate in approximately 426 municipalities nationwide.

Eliminating the NRC would save $50 million in federal outlays in 1998 and a total of $250 million over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, savings would be $51 million in 1998 and $271 million over the five-year period.

For 1997, the NRC's annual appropriation of $50 million represents 89 percent of its annual income. With those funds, the corporation provides grants, conducts training programs and educational forums, and produces informative publications in support of member NWOs. The bulk of the grant money goes to NWOs. The organizations use the funds to cover operating costs; undertake projects; purchase, construct, and rehabilitate properties; and capitalize their revolving loan funds. A revolving loan fund relies on its initial stock of financial capital to make loans, which means that new loans are made only as outstanding loans are repaid (the sense in which the fund "revolves"). NWO revolving loan funds make home ownership and home improvement loans to individuals or loans to owners of mixed-use properties who provide long-term rental housing for low- and moderate-income households. Also, the NRC awards grants to Neighborhood Housing Services of America to provide a secondary market for the loans from NWO revolving funds. The corporation also uses its revenue to cover administrative costs and award contracts to suppliers of goods and professional services.

One argument for terminating the program is that federal funds should be targeted toward programs whose benefits are national rather than local. Member NWOs are funded partially at the local level, but because the NRC organizes, supervises, and provides grants to those local organizations, the program constitutes a case in which federal funds are being used to generate local benefits. In addition, the NRC does not dispense funds and assistance to all distressed communities. Instead, the benefits of the program accrue only to those neighborhoods that actively seek NRC funds.

Another argument for eliminating the NRC is that it appears to duplicate the efforts of other federal programs. For example, the Community Development Block Grant program also serves to rehabilitate low-income housing. Various other initiatives are carried out by government-sponsored enterprises (GSEs) to promote home ownership and community development. Such GSE initiatives include the Federal Home Loan Bank System's Affordable Housing and Community

Investment Programs and the Federal Home Loan Mortgage Corporation's Expanding Markets Program.

Proponents of the NRC argue that without it, the activities that it currently funds would not be undertaken, in part because state and local governments might not have the resources to make up the difference in federal aid. They also note that some of the NRC's activities are not duplicated in other home lending and housing rehabilitation programs--in particular, the nonhousing activities that the NWOs conduct in conjunction with home ownership and housing rehabilitation (such as community organization building, neighborhood cleanup and beautification, and leadership development). NRC supporters maintain that this focus on the condition of the neighborhood as a whole represents a comprehensive approach to the problems of affordable housing and community revitalization, and that the broad orientation has advantages that would not be associated with a more narrow focus.

To the extent that both the market and personal value of a home are inextricably tied to the condition of the neighborhood in which it is located, rebuilding the entire neighborhood enhances the value of each individual piece of property in that neighborhood. Rebuilding may enhance the collateral value of the properties, making the homeowners in the neighborhood eligible for loans from banks and other private sources at a later date. An emphasis on distressed neighborhoods and on the sources of distress may therefore have benefits that a program focused exclusively on low-income housing would not.

Finally, advocates say that the NRC fills a niche in the housing market. Supporting that contention is the fact that the home purchases it facilitates appear to be far below the median national price of a home. Additionally, the residents of the participating NWO neighborhoods are overwhelmingly low- to moderate-income people. Both of those factors suggest that the NRC operates in a market that has historically been underserved.

DOM-38 ELIMINATE FUNDING FOR HEAD START

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	3,981	3,981	3,981	3,981	3,981	19,905
Outlays	1,592	3,583	3,981	3,981	3,981	17,118
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	4,081	4,192	4,303	4,419	4,538	21,533
Outlays	1,632	3,717	4,225	4,338	4,455	18,367

Since 1965, Head Start has funded grants to local agencies to provide comprehensive services to economically disadvantaged children and their families. Its purpose is to foster the development of children from low-income families. The services supported by Head Start address the health, education, and nutrition of the children as well as their social behavior. Funds are awarded to about 1,400 grantees at the discretion of the Secretary of Health and Human Services, using state allocations determined by formula. Grantees must contribute 20 percent of program costs from nonfederal funds unless they obtain a waiver.

Head Start emphasizes involving families and the community to ensure that local programs are responsive to the needs of the areas they serve. As a result, wide variation exists in how Head Start services are delivered and in local program costs, sponsoring agencies, and coordination with other social service programs. Most Head Start programs provide center-based services to children for three or four hours a day during the school year. Although Head Start is authorized to serve children who are below the age of compulsory school attendance, most participants enter the program at age 4 and remain in it for one year before entering kindergarten. In 1995, about 750,000 children were served, approximately 60 percent of whom were 4 years of age. The average cost per child in Head Start in that year was $4,500 (compared with $6,100 per pupil spent by public elementary and secondary schools).

Eliminating Head Start would reduce federal outlays in the 1998-2002 period by $17.1 billion measured from the 1997 funding level. The savings from the 1997 funding level adjusted for inflation would be almost $18.4 billion over that period.

The primary argument for eliminating Head Start is that it does not improve the prospects of participants over the long run. Although the program produces gains in intellectual performance, social behavior, and emotional development by the end of a year of intervention, those gains decline and disappear as participants move through elementary school. Moreover, participation in Head Start does not inoculate children against serious academic problems and the need for remedial instruction in their early years of elementary school. Some early intervention efforts have provided evidence of long-term improvement in the lives of participants, but those projects were much more intensive--and expensive--than Head Start and were initiated several decades ago, when the social environment of the country, especially in urban areas, was different. Such results may not be possible in today's communities.

The main argument for funding Head Start is that it appears to reduce modestly the probability that participants will be placed in special education programs and to increase the likelihood that students will be promoted to higher grades. Proponents also argue that Head Start enrolls the most severely disadvantaged children and consequently could be credited with preventing participants from falling even further behind in their cognitive and socioemotional development before they enter elementary school.

An alternative option is to redirect some of the savings from eliminating Head Start to the Early Head Start Initiative approved in the 1994 reauthorization of Head Start. The initiative, whose funding is limited to 5 percent of total Head Start spending in 1998, offers comprehensive child development and family support services that are similar to those provided by regular Head Start projects--but the initiative offers them year-round to families with children under age 3 and pregnant women. Proponents of shifting funds to the initiative contend that it offers better value for the money. They argue that serving children who are younger, on average, than those in regular Head Start projects in conjunction with their parents could be more effective than the regular projects in producing lasting effects on patterns of child development and long-term behavior. However, critics of expanding the initiative are concerned about a possible dearth of qualified staff to meet the complex needs of younger children and their families. In that case, not only would the additional funds not be better spent, but the children might actually get fewer useful services than in the regular Head Start program.

DOM-39 ELIMINATE OR REDUCE FUNDING FOR TITLE I, EDUCATION FOR THE DISADVANTAGED

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Eliminate Funding						
From the 1997-1998 School Year Funding Level						
Budget authority	6,400	7,698	7,698	7,698	7,698	37,192
Outlays	924	6,159	7,544	7,698	7,698	30,023
From the 1997-1998 School Year Funding Level Adjusted for Inflation						
Budget authority	6,560	8,070	8,290	8,510	8,740	40,170
Outlays	950	6,340	7,930	8,300	8,530	32,050
Reduce Funding by 50 Percent						
From the 1997-1998 School Year Funding Level						
Budget authority	3,200	3,849	3,849	3,849	3,849	18,596
Outlays	462	3,079	3,772	3,849	3,849	15,011
From the 1997-1998 School Year Funding Level Adjusted for Inflation						
Budget authority	3,360	4,224	4,439	4,661	4,891	21,575
Outlays	485	3,261	4,161	4,455	4,678	17,040

NOTE: Funds provided by the Congress for the 1997-1998 school year include an advance appropriation for fiscal year 1998 that the Congressional Budget Office has incorporated in its baseline. The estimates of savings in this table assume that the program would be eliminated beginning in the 1998-1999 school year.

Title I of the Elementary and Secondary Education Act of 1965 provides grants to school districts to fund supplementary educational services for educationally disadvantaged children who live in areas with high concentrations of children from low-income families. Federal funds are allocated through a formula based on the number of poor children in an area. However, schools that receive Title I funds may use them to provide services to any students who are performing well below their grade level.

Students who receive services through Title I are most often pulled out of their regular classrooms for supplemental instruction. The extra education students receive can be in any subject but is most often in reading, mathematics, and language arts. The emphasis is largely on basic skills, although federal law encourages greater attention to developing so-called higher-order thinking skills.

Title I funds reach over half of all schools (more than 50,000) and in the 1993-1994 school year served approximately 6.6 million children. Almost 70 percent of participants are in elementary school; an additional 10 percent are enrolled in kindergarten or preschool. Minorities make up about 60 percent of participants, with Hispanics the largest minority group.

Eliminating Title I funding would reduce federal outlays in the 1998-2002 period by about $30 billion

measured from the 1997-1998 school year funding level. The savings from the 1997-1998 school year funding level adjusted for inflation would be more than $32 billion over that period.

The primary justification for eliminating Title I funding is that it does not improve the academic progress of students who receive its services. Comparisons with similar groups of students (by grade and poverty status) show that program participants do not improve their academic achievement relative to other students. Moreover, a recent study by the Department of Education found that the test scores of students receiving Title I services actually declined between the third and fourth grades, whereas those of nonrecipients rose slightly. (Many education researchers consider that time to be a critical transition period because by the fourth grade, students should have sufficiently mastered reading skills to enable them to learn by reading.)

According to its supporters, the main justification for continuing Title I funding is that it has become a major federal instrument for fostering school reform to improve learning for all children. States applying for Title I funds must show that they have, or will develop by 1998, standards for challenging academic content (for purposes of instruction) and for student performance (for assessing the outcomes of instruction), at least in the areas of mathematics and reading or language arts. Those standards, which specify what children are expected to know and be able to do, must apply to Title I participants as well as to all other pupils in the state.

An alternative approach would be to reduce funding for Title I to 50 percent of the 1997-1998 school year funding level. That option would save about $15 billion in the 1998-2002 period, or about $17 billion when adjusted for inflation. On the one hand, Title I could still be an effective instrument of school reform with only half of its current funding. On the other hand, it would probably continue to be ineffective in improving the academic skills of students who received its services.

DOM-40 ELIMINATE FUNDING FOR BILINGUAL EDUCATION

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	157	157	157	157	157	785
Outlays	19	125	154	157	157	612
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	161	165	169	174	179	848
Outlays	19	129	161	169	174	652

Federal bilingual education programs authorized in title VII of the Elementary and Secondary Education Act of 1965 fund grants to school districts and other recipients to provide instruction to students who have limited proficiency in English primarily because a language other than English is spoken in their homes.

Bilingual education projects funded through title VII provide a range of services to students with limited proficiency in English. In 1993, they aided about 350,000 pupils; in addition, title VII funds supported programs to train teachers and other educators that in 1991 could be found at 81 colleges and universities in 27 states. Most of the students served were taught by using a method of instruction called transitional bilingual education, which involves teaching children in each of their classes jointly in English and their native language. No more than 25 percent of federal funding for bilingual education programs may be used to support instruction only in English.

Eliminating federal bilingual education programs would reduce federal outlays in the 1998-2002 period by about $612 million measured from the 1997 funding level. Savings from the 1997 level adjusted for inflation would be about $652 million over the five-year period.

Proponents of this option contend that transitional bilingual education programs under title VII largely perpetuate and reinforce native cultures rather than advance literacy in the English language. The result, they maintain, is that the integration of students into U.S. society is retarded.

Supporters of this federal program assert that transitional bilingual education, which introduces students to the English language while continuing instruction in their native language, helps students in two ways: they acquire knowledge in a variety of academic subjects as well as become literate in English. As a result, supporters argue, students will not fall behind their schoolmates in other subjects by the time they make the transition to classes taught only in English.

DOM-41 ELIMINATE OR REDUCE FUNDING TO SCHOOL DISTRICTS FOR IMPACT AID

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Eliminate Funding						
From the 1997 Funding Level						
Budget authority	730	730	730	730	730	3,650
Outlays	595	712	729	730	730	3,496
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	748	769	789	810	832	3,948
Outlays	610	747	784	806	827	3,774
Restrict Eligibility and Reduce Funding						
From the 1997 Funding Level						
Budget authority	68	68	68	68	68	340
Outlays	55	66	68	68	68	325
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	69	71	73	75	77	365
Outlays	57	70	73	75	77	352

Impact Aid (previously known as School Assistance in Federally Affected Areas) is intended to compensate school districts affected by activities of the federal government. The program pays districts for federally connected pupils and for school construction in areas where the federal government has acquired a significant portion of the real property tax base, thereby depriving the school district of a source of revenue.

Impact Aid goes to school districts that have a minimum of 3 percent (or at least 400) of their pupils associated with activities of the federal government, such as pupils whose parents both live and work on federal property (including Indian lands), pupils whose parents are in the uniformed services but live on private property, and pupils who live in low-rent housing that is federally subsidized. In addition, aid goes to a few districts enrolling at least 2,000 pupils (and 15 percent of enrollment) whose parents work on federal property. In 1995, approximately 2,500 school districts in all 50 states received Impact Aid. As a result of the program's reauthorization in 1994 (as title VIII of the Elementary and Secondary Education Act of 1965, as amended), Impact Aid is likely to be more targeted in the future toward pupils whose parents live and work on federal land. Because of hold-harmless provisions, however, most school districts will not be fully affected by the changes in the law until this year.

Eliminating all funding for Impact Aid would reduce federal outlays in the 1998-2002 period by about $3.5 billion measured from the 1997 funding level or by about $3.8 billion measured from the 1997 level adjusted for inflation. Proponents of eliminating the program argue that the economic benefits from federal activities outweigh the demands placed on the schools, making Impact Aid unnecessary. Those economic benefits are considered so substantial that local jurisdictions compete vigorously for new federal activities and lobby intensely to forestall losing existing ones.

Opponents counter that the presence of federal activities does not adequately compensate local governments and school districts for losses in property tax

revenues. (Additional revenues resulting from federal activities are collected primarily by the state through income and sales taxes.) Moreover, some school districts--especially isolated ones that have military installations with large numbers of children residing on federal property--would face severe financial hardship if such funding was eliminated.

A second option would be to restrict Impact Aid payments to school districts with children who are most directly associated with federal activities. That includes children who live on federal property and have a parent on active duty in the uniformed services, as well as children who live on Indian lands. Such a restriction would reduce federal spending by about $325 million during the 1998-2002 period measured from the 1997 funding level or by about $350 million measured from the 1997 level adjusted for inflation. (The estimate of savings from this alternative, which would require changes in authorizing legislation, is based on the proportion of program spending that occurred on behalf of those children in 1997.)

Proponents of this alternative argue that restricting Impact Aid payments to students whose presence puts the greatest burden on school districts is appropriate given the limited funding available for federal discretionary programs. Opponents argue that eliminating payments for other types of children associated with federal activities could significantly affect selected districts--for example, those in which large numbers of military families live off-base but shop at military exchanges, which do not collect state and local sales taxes.

DOM-42 ELIMINATE FUNDING FOR THE SAFE AND DRUG-FREE SCHOOLS AND COMMUNITIES ACT

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	556	556	556	556	556	2,780
Outlays	67	445	545	556	556	2,169
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	570	585	601	617	634	3,007
Outlays	68	458	573	600	616	2,315

The Safe and Drug-Free Schools and Communities Act funds grants to states for programs to prevent drug abuse and violence. To be eligible for funds, states must assess their need for such aid and articulate measurable goals and objectives for reducing and preventing drug abuse and violence. Funds are allocated to states based on the number of children of school age and the share of federal Title I funds they receive. (Title I is the main federal program for educating disadvantaged children.)

The vast majority of those federal funds are allocated by states to school districts. Districts that receive funds must implement comprehensive programs to prevent drug abuse and violence among students and employees and must include activities to involve parents and community groups.

Eliminating funding for the Safe and Drug-Free Schools and Communities Act would reduce federal outlays by about $2.2 billion over the 1998-2002 period measured from the 1997 funding level. Savings from the 1997 level adjusted for inflation would be about $2.3 billion.

Critics of this program argue that it has not been successful in reducing drug and alcohol abuse among teenagers. The proportion of adolescents who say they use illicit drugs has risen from 20 percent to 31 percent between 1993 and 1996. Opponents also maintain that federal efforts to reduce drug use and violence should focus on law enforcement activities rather than on education and prevention efforts. Federal involvement in education and prevention programs in schools and communities, critics believe, undermines the accountability and responsibility of parents, teachers, and community leaders in combating drug abuse and violence.

Supporters of this program cite the increasing drug use among teenagers as evidence of the need for the program. Drug abuse and violence are so pervasive, they argue, that parents, teachers, and leaders in local communities lack both the time and the knowledge to be effective in opposing them. Proponents consider it necessary to employ expert guidance and additional training to help teachers, counselors, and others take action to deal with the problems associated with drug abuse and violence.

DOM-43 REDUCE FUNDING FOR ELEMENTARY AND SECONDARY EDUCATION PROGRAMS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	7,402	8,052	8,052	8,052	8,052	39,610
Outlays	1,257	6,360	7,843	8,052	8,052	31,564
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	7,774	8,874	9,324	9,791	10,274	46,037
Outlays	1,321	6,752	8,666	9,328	9,795	35,862

NOTE: Funds for Title I for the 1997-1998 school year include an advance appropriation for fiscal year 1998 that the Congressional Budget Office has incorporated in its baseline. The estimates of savings in this table assume that Title I would be reduced beginning in the 1998-1999 school year.

About $325 billion was spent educating children in elementary and secondary schools in this country in the 1995-1996 school year. The federal share of that total was estimated to be almost 7 percent, or about $22 billion. The largest federal programs funded through the Department of Education are Title I of the Elementary and Secondary Education Act, which funds services for economically and educationally disadvantaged students; Impact Aid, which compensates school districts affected by certain federal activities; the Individuals with Disabilities Education Act, which funds services for disabled students; and the Perkins Vocational and Applied Technology Education Act, which funds vocational education.

Because the federal contribution to elementary and secondary education is relatively small, some analysts have suggested that funding for such programs in the Department of Education be decreased to help reduce federal spending (see, for example, DOM-39, DOM-40, and DOM-42). Over the 1998-2002 period, holding funding for those programs at 50 percent of the 1997 level would save about $32 billion measured from the 1997 funding level or $36 billion measured from the 1997 level adjusted for inflation. This option would reduce the appropriation by about 55 percent, in real terms, in the fifth year.

If the funding for those programs was reduced, the Congress might also consider modifying them to enhance the flexibility of state and local governments in adjusting to those decreases. One possible change would be to fold the programs into a block grant that specified purposes for which the funds could be spent but left decisions about how to use the funds to the states and the school districts. Since some of the programs are associated with federal mandates regarding services that children must receive (for example, for disabled students), the Congress might also want to modify those mandates.

The primary argument in favor of this proposal is that the federal government cannot afford to fund those programs at their current levels. If funding was reduced, state and local governments might offset some of the cuts to the extent that they found the programs useful or required by federal mandates. Enhancing the flexibility of states and school districts in adjusting to possible cuts could reduce some of the negative consequences of reductions in funding.

The main argument for maintaining funding for those programs is that the effects of cuts would be concentrated among the special populations of students that the programs serve. Those populations in-

clude students with one or more of the following characteristics: economically and educationally disadvantaged, limited proficiency in English, disabled, Indian (Native American) origin, and in vocational education. Because states and school districts are unlikely to be able to offset all of the reductions in federal funds, services for students in those categories would probably be reduced.

DOM-44 ELIMINATE 16 SMALL GRANT PROGRAMS IN THE DEPARTMENT OF EDUCATION

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	77	77	77	77	77	385
Outlays	11	62	76	77	77	303
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	79	81	84	86	88	418
Outlays	12	63	80	83	86	324

The Department of Education funds more than 200 programs that address a range of problems at all levels of education. Some analysts have argued that a number of those programs have either largely or completely achieved their original purposes or could be supported by other funding sources. The National Performance Review (NPR) recommended that 34 such programs be eliminated, and the Congress did eliminate a number of them. Among the remaining programs on the NPR list are six relatively small programs that are not considered elsewhere in this volume. Another 10 programs in the Department of Education considered here are each funded at $10 million or less in 1997. Those 16 programs range in cost from about $1 million to $15 million a year. Eliminating all of them would save, over the 1998-2002 period, about $300 million measured from the 1997 funding level or about $325 million measured from the 1997 level adjusted for inflation.

NPR Terminations. The Congress appropriated $34 million in 1997 for the six programs that the NPR recommended terminating. Eliminating those programs would reduce federal spending over the 1998-2002 period by $133 million measured from the 1997 funding level or by $142 million measured from the 1997 level adjusted for inflation.

Those six grant programs vary in size and serve a wide range of purposes. The largest one--Education for Native Hawaiians--received $15 million in 1997. The smallest is the Ellender Fellowships (a grant to the Close Up Foundation to bring economically disadvantaged people to Washington, D.C., to increase their understanding of the federal government), which gets $1.5 million in funding. Other programs include several small ones for libraries and for civic education.

The NPR recommended terminating these programs because they duplicate others, have achieved their purposes, or are more appropriately supported with nonfederal funds. The Department of Education has already suggested eliminating most of them. Opponents of this option argue that many of the programs have been successful in addressing the specific problems for which they were created but are still needed because the underlying conditions continue to exist. Advocates also point out that alternative funding from local and state governments or private sources would probably not be forthcoming if the federal programs were eliminated.

Other Small Programs. The Congress appropriated about $44 million in 1997 for the 10 additional programs considered here that had annual spending of about $10 million or less. Eliminating those programs would reduce federal spending over the 1998-2002 period by $171 million measured from the 1997 funding level or by $182 million measured from the 1997 level adjusted for inflation.

Those 10 programs are all small and support a range of projects. The largest program, Inexpensive Book Distribution, received $10 million in 1997. The next largest program, Urban Community Services, received $9 million. The other eight programs were all funded at $7 million or less.

Proponents of eliminating those programs argue that the projects supported by them are generally too small to be effective on a national scale, duplicate other efforts across the nation, or could be funded from other federal programs. Many of the programs might also obtain funding from foundations or other nonfederal sources. Opponents of elimination, however, argue that many of the programs are intended to demonstrate the effectiveness of imaginative ideas that could later be adopted by other schools, districts, or states. They also contend that the federal government has a natural role in disseminating information about useful innovations in education.

DOM-45 ELIMINATE STATE STUDENT INCENTIVE GRANTS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	50	50	50	50	50	250
Outlays	10	50	50	50	50	210
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	51	53	54	56	57	271
Outlays	10	52	53	54	56	225

The State Student Incentive Grant (SSIG) program helps states provide financially needy postsecondary students with grant and work-study assistance while they attend academic institutions and schools that teach occupational skills. States must match federal funds at least dollar for dollar, while also meeting maintenance-of-effort criteria. Unless excluded by state law, all public and private nonprofit postsecondary institutions in a state are eligible to participate in the SSIG program. In 1997, the federal government provided \$50 million, an increase of almost 60 percent from the previous year.

During the 1998-2002 period, eliminating SSIGs would save taxpayers \$210 million measured from the 1997 funding level or \$225 million measured from the 1997 level adjusted for inflation. The extent of the actual reduction in student assistance would depend on the responses of states, some of which would probably make up part of the lost federal funds.

Proponents of eliminating this program argue that it is no longer needed to encourage states to provide more student aid. When the SSIG program was authorized in 1972, only 31 states had student grant programs; now, all 50 states provide student grants.

Opponents of eliminating SSIGs argue that not all states would increase their student aid appropriations to make up for the lost federal funding, and some might even reduce them. In that case, some students receiving less aid might not be able to enroll in college or might have to attend a less expensive school. Eight states just met the SSIG matching provision in the 1991-1992 school year.

DOM-46 ELIMINATE FEDERAL FUNDING FOR CAMPUS-BASED STUDENT AID

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	1,571	1,571	1,571	1,571	1,571	7,855
Outlays	157	1,524	1,571	1,571	1,571	6,394
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	1,610	1,654	1,698	1,744	1,791	8,497
Outlays	161	1,566	1,657	1,701	1,747	6,832

The federal government provides campus-based student aid through three programs: Supplemental Educational Opportunity Grants, Perkins Loans (formerly National Direct Student Loans), and Work-Study. Financial aid administrators at postsecondary institutions determine which eligible students receive aid under general federal guidelines. In 1997, the federal government provided $1.6 billion in campus-based aid, which will go to roughly 2.0 million students.

Eliminating federal funding for those programs would lower outlays from the 1997 funding level by $6.4 billion during the 1998-2002 period. The savings from the 1997 funding level adjusted for inflation would be $6.8 billion over that period. Alternatively, some of the savings from eliminating those programs could be redirected to the Federal Pell Grant Program, which is more closely targeted toward low-income students. The extent of the reduction in total student aid would depend on the responses of postsecondary institutions, some of which would make up part or all of the lost federal funds. Moreover, since postsecondary institutions retain about $6.5 billion in revolving funds under the Perkins Loan program, an estimated 620,000 students would receive loans, averaging about $1,340 in 1997, even if the federal government did not fund any new campus-based aid.

The primary justification for this option reflects the view that the main goal of federal student aid is to provide access to postsecondary education for people with low income. Because campus-based aid is tied to specific institutions, students with greater need at poorly funded schools may receive less than those with less need at well-funded institutions.

Postsecondary institutions object to this option, however, because it would reduce their discretion in packaging aid to address the special situations of some students while also reducing total available aid. Moreover, these programs disproportionately help students at private, nonprofit institutions (whose students get 40 percent of this aid, compared with about 20 percent of Pell Grant aid). Thus, cutting campus-based aid would make that type of school less accessible to needy students.

Redirecting some of the savings from eliminating campus-based aid to the Pell Grant program would mitigate the effects on lower-income students of less total aid. The Pell Grant appropriation provides for a maximum award of $2,700 in the 1997-1998 school year. Redirected funds from campus-based programs could be used by the appropriations committees to increase the maximum Pell grant. Pell grants allow students to choose freely among postsecondary institutions rather than be limited to institutions that offer them campus-based aid.

DOM-47 ELIMINATE FUNDING FOR THE NATIONAL AND COMMUNITY SERVICE ACT

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Discretionary Spending						
From the 1997 Funding Level						
Budget authority	388	402	402	402	402	1,996
Outlays	38	201	311	358	373	1,281
From the 1997 Funding Level Adjusted for Inflation						
Budget authority	398	423	435	447	459	2,162
Outlays	39	208	326	382	408	1,363
Direct Spending[a]						
Budget Authority	17	18	17	17	17	86
Outlays	0	0	0	0	0	0

a. Budget authority savings are from the interest that accrues in the National Service Trust Fund. No outlay savings are shown because the Congressional Budget Office includes the estimated outlays from the trust fund as discretionary spending.

As a reward for providing community service, students may receive aid from the federal government to attend postsecondary schools through the National and Community Service Act. The act funds three programs: the AmeriCorps Grants Program, the National Civilian Community Corps (NCCC), and Learn and Serve America. Those programs provide assistance for education, public safety, the environment, and health care, among other services. In many cases, the programs build on existing federal, state, and local programs. The AmeriCorps Grants Program and NCCC provide participants with an educational allowance that may reach as much as $4,725 for at least 1,700 hours of community service annually. Each person may participate for up to two years, and the awards can be used for up to seven years after service. Participants also receive a stipend for living expenses and, if they need them, health insurance and child care. Learn and Serve America participants do not receive stipends or education awards but may receive academic credit toward their degrees. In 1997, federal funding for the three programs amounts to $403 million, of which $215 million is for AmeriCorps grants. About one-third of the total financial resources available for the AmeriCorps Grants Program comes from state and local governments and from private enterprises. An estimated 25,000 participants will receive assistance.

Eliminating federal funding for those programs would save $1.3 billion over the 1998-2002 period measured from the 1997 funding level. The savings from the 1997 level adjusted for inflation would be $1.4 billion over that period. (Those estimates include costs associated with terminating the programs.) Alternatively, some of the savings from eliminating those programs could be redirected to the Federal Pell Grant Program, which is more closely targeted toward low-income students.

Some critics who favor eliminating the three programs maintain that the federal government's cost per participant is excessive. For example, in 1995 the federal government paid $20,800 per AmeriCorps participant, of which only about one-third actually constituted financial aid. Furthermore, critics argue that community service should be voluntary rather than an activity for which a person is paid. An additional justification for this option is based on the view that the main goal

of federal aid to students should be to provide access to postsecondary education for people with low income. Because participation in these programs is not based on family income or assets, funds do not necessarily go to the poorest students.

Supporters of the programs argue, however, that in addition to providing valuable services, the National and Community Service Act enables many students to attend postsecondary schools. Moreover, a substantial portion of the AmeriCorps Grants Program's total funding comes from state and local governments and from private enterprises, and at least some of those funds might not be available if the act was not there as leverage. Further, supporters argue, the federal government has taken steps to reduce its cost for the program. Proponents also argue that some early research on the AmeriCorps Grants Program, NCCC, and Learn and Serve America indicates that the benefits to individuals and U.S. society are likely to be greater than the federal investment in those programs. In addition, they believe that offering opportunities for national service promotes a sense of idealism among young people and should be supported.

Redirecting some of the savings from eliminating those programs to Pell grants would mitigate the effects of this option on lower-income students. The Pell Grant appropriation provides for a maximum award of $2,700 per student in the 1997-1998 school year. The appropriations committees could use redirected funds from these national service programs to increase the maximum Pell grant.

DOM-48 ELIMINATE THE SENIOR COMMUNITY SERVICE EMPLOYMENT PROGRAM

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	465	465	465	465	465	2,325
Outlays	85	425	465	465	465	1,905
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	475	490	500	515	530	2,510
Outlays	85	435	490	500	515	2,025

The Senior Community Service Employment Program (SCSEP) funds part-time jobs for people age 55 and older who are unemployed and who meet income eligibility guidelines. Through SCSEP, which is authorized under title V of the Older Americans Act, grants are awarded to several nonprofit organizations, the U.S. Forest Service, and state agencies. The sponsoring organizations and agencies pay participants to work in part-time community service jobs for about 20 to 25 hours per week, up to a maximum of 1,300 hours per year.

SCSEP participants work in schools, hospitals, and senior citizen centers and on beautification and conservation projects. They are paid the higher of the federal or state minimum wage or the local prevailing rate of pay for similar employment. Participants also receive annual physical examinations, personal and job-related counseling, and assistance to move into private-sector jobs when they complete their projects. SCSEP is not considered a training program, but in recent years it has put increasing emphasis on preparing its participants for unsubsidized employment. About 20 percent of enrollees move on to such jobs.

Eliminating SCSEP would reduce outlays over the 1998-2002 period by about $1.9 billion measured from the 1997 funding level or by about $2.0 billion measured from the 1997 level adjusted for inflation. Opponents of the program maintain that it offers few benefits aside from income support and that the presumed value of the work experience gained by SCSEP participants would generally be greater if the experience was provided to equally disadvantaged young people, who have longer careers over which to benefit. In addition, the costs of producing the services now provided by SCSEP participants could be borne by the organizations that benefit from their work; under current law, those organizations bear only 10 percent of such costs. That shift would ensure that only those services that were most highly valued would be provided.

SCSEP, however, is the major federal jobs program aimed at low-income older workers, and eliminating it could cause hardship for older workers who were unable to find comparable unsubsidized jobs. In general, older workers are less likely than younger workers to be unemployed, but those who are take longer to find work. Moreover, without SCSEP, community services might be reduced if nonprofit organizations and states were unwilling or unable to increase expenditures to offset the loss of federal funds.

DOM-49 ELIMINATE FUNDING FOR THE ARTS AND HUMANITIES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	923	923	923	923	923	4,615
Outlays	694	865	903	921	923	4,306
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	945	967	996	1,027	1,059	4,994
Outlays	709	900	966	1,016	1,049	4,640

NOTE: The savings shown in 1998 and 1999 would require a rescission of all or part of the advance appropriations for the Corporation for Public Broadcasting of $250 million in both years. Funding for the corporation is $260 million in 1997. Eliminating it would save $250 million compared with the 1998 funding level.

The federal government subsidizes various arts and humanities activities. In 1996, federal outlays for the Corporation for Public Broadcasting, the Smithsonian Institution, the National Gallery of Art, the National Endowment for the Arts, the National Endowment for the Humanities, and the John F. Kennedy Center for the Performing Arts totaled about $1 billion.

Eliminating funding for those programs would reduce federal outlays over the 1998-2002 period by about $4.3 billion measured from the 1997 funding level or by about $4.6 billion measured from the 1997 level adjusted for inflation. The final effect on arts and humanities activities would depend on the extent to which other funding sources--states, individuals, firms, and foundations--increased their contributions and on whether higher admission fees to those activities were used to make up for reduced federal funding.

Proponents of this option argue that federal funding for the arts and humanities is not affordable in a time of fiscal stringency, especially when programs addressing central federal concerns are not fully funded. Moreover, because many arts and humanities programs benefit predominantly higher-income people, instituting or raising admission fees or ticket prices could substitute for federal aid in many cases. In a number of cities in the United States and abroad, for example, museums charge fees.

Eliminating federal appropriations for the arts and humanities would probably result in fewer of those activities, however, because other funding sources would not be likely to offset fully the loss in federal subsidies. As a result, activities that preserve and advance the nation's cultural heritage would be likely to decline.

DOM-50 REDUCE THE MATERNAL AND CHILD HEALTH CARE BLOCK GRANT AND THE PREVENTIVE HEALTH SERVICES BLOCK GRANT

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	418	418	418	418	418	2,090
Outlays	161	368	400	418	418	1,765
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	429	440	453	465	478	2,265
Outlays	165	383	426	456	468	1,898

In its appropriations for 1997, the Congress provided about $835 million in block grants for programs in maternal and child health and preventive health services. Almost all of those funds are distributed to the states, with a small amount being used for federal initiatives. The block grants, which are funded through the Public Health Service, allow states considerable flexibility in choosing the programs to fund within the specified areas. Those grants do not generally restrict benefits to categories of recipients, such as low-income families.

Each block grant supports a wide range of programs. The Maternal and Child Health Care Block Grant subsidizes programs that provide such services as preventive care, prenatal care, health assessments for children, rehabilitation services for blind and disabled children, and community-based services for children with special health care needs. The 1997 funding for that block grant is $681 million. The Preventive Health Services Block Grant supports programs in areas not covered by other grants, including emergency medical service systems, prevention of sex offenses and provision of services to victims, and support of state and local government efforts to develop data systems to monitor the health of the population. Funding for 1997 is $154 million.

If funding for each of those block grants was held at half of the 1997 level, the savings in outlays for the 1998-2002 period would be about $1.8 billion measured from the 1997 funding level or about $1.9 billion measured from the 1997 level adjusted for inflation. In 2002, spending would equal 56 percent of the 1997 level adjusted for inflation.

The principal justification for such reductions is that the federal commitment to other programs directed toward maternal and child health and preventive health services has increased substantially in recent years. For example, Medicaid's coverage of low-income women and young children has expanded in several ways. States are now required to provide Medicaid coverage to pregnant women and to children under age 6 in families with income below 133 percent of the federal poverty level. States are also now required to provide Medicaid coverage to children under the age of 19 who were born after September 30, 1983, and whose family income is below the poverty line. The phase-in will continue until all children under the age of 19 with family income below the poverty line are covered by Medicaid in 2002. Thus, the block grants are not essential for ensuring access to health services for those individuals.

In addition, states have the option of providing Medicaid coverage for pregnant women and infants in families with income of up to 185 percent of the poverty line. As of August 1996, 34 states and the District of Columbia had set income thresholds above 133 percent of the poverty line for that population. Similarly, between 1991 and 1996, funding for programs of the Centers for Disease Control and Prevention for immunization, chronic and environmental disease, breast and cervical cancer, tuberculosis, and human immuno-

deficiency virus (HIV) infection increased by $643 million, or 79 percent.

The major disadvantage of cutting the block grants is that in the current fiscal environment, many states might be unable to assume a greater share of the financial responsibility for the affected programs. Cuts in the block grants could adversely affect the health of people --especially those in low-income families who are not eligible for Medicaid--who would receive less assistance from those programs.

DOM-51 ELIMINATE SUBSIDIES FOR HEALTH PROFESSIONS EDUCATION

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	289	289	289	289	289	1,445
Outlays	116	263	278	289	289	1,235
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	297	305	314	322	331	1,569
Outlays	119	274	296	316	325	1,330

The Congress provided about $289 million to the Public Health Service in 1997 to subsidize education for physicians, nurses, and public health professionals. Those funds primarily furnish institutional support through grants and contracts to schools for designated training programs in the health professions. A limited amount of the assistance is provided through loans, loan guarantees, and scholarships for students. The programs promote training in primary care for physicians and other health professionals, advanced nursing education, and increased enrollment of minority and economically disadvantaged students:

- *Primary care training*. Several programs provide federal grants to medical schools, teaching hospitals, and other training centers to develop, expand, or improve graduate medical education in primary care specialties and other allied health fields and to encourage practice in rural and low-income urban areas. Funding for 1997 is $137 million.

- *Nursing education*. The subsidies to nursing schools are meant to increase graduate training for nurse administrators, educators, supervisors, researchers, and nursing specialists, including nurse-midwives and nurse-practitioners. Funding for 1997 is $63 million.

- *Support for minority and economically disadvantaged students*. Over half of these funds go to professional schools for recruiting, training, and counseling minority and economically disadvantaged students. The remaining funds are for student loans and scholarships. Funding for 1997 is $89 million.

Eliminating all of those subsidies would save, over the 1998-2002 period, about $1.2 billion measured from the 1997 funding level or about $1.3 billion measured from the 1997 level adjusted for inflation. The principal justification for this option is that market forces provide strong incentives for individuals to seek training and jobs in the health professions. Over the past several decades, physicians--the principal health profession targeted by the subsidies--have rapidly increased in number, from 142 physicians in all fields for every 100,000 people in 1950, to 161 in 1970 and 244 in 1990. Projections by the American Medical Association indicate that the total number of physicians per capita will continue to rise through 2000. In the case of nurses, if a shortage indeed existed, higher wages and better working conditions would attract more people to the profession and more trained nurses to nursing jobs, and would encourage more of them to seek advanced training.

Moreover, because the subsidies go mainly to institutions, they may have little effect on the numbers or characteristics of people studying to be health professionals. For example, most of the subsidies for nurses' training are directed toward increasing skills through baccalaureate degree programs and advanced education in nursing, rather than raising the number of new entrants into the profession. Similarly, over half of the funds for increasing enrollment of minority and economically disadvantaged students are used to support

schools' recruitment, training, and counseling efforts. Many critics of the subsidies contend that schools in the health professions have a strong commitment to recruiting students from diverse backgrounds. Given that commitment, schools would probably continue much of their recruiting and training efforts even if the subsidies were eliminated.

The major disadvantage of eliminating the subsidies is that the incentives supplied by market forces may not be sufficient to entirely meet the goals of these health professions programs. For example, third-party reimbursement rates for primary care may not encourage enough physicians to enter those specialties and may not include financial inducements sufficient to increase access to care in rural and inner-city areas. In addition, fewer people might choose advanced training in nursing, which could limit the opportunities for the use of relatively inexpensive physician substitutes. Another drawback relates to the goal of increasing enrollment of minority and economically disadvantaged students. To the extent that schools did not fully offset the cut in federal funds for scholarships, fewer such students might enter the health professions, possibly exacerbating the problem of access to care in medically underserved areas.

DOM-52 REDUCE FUNDING FOR RESEARCH SUPPORTED BY THE NATIONAL INSTITUTES OF HEALTH

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	1,275	1,275	1,275	1,275	1,275	6,375
Outlays	504	1,071	1,246	1,269	1,272	5,362
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	1,610	1,975	2,342	2,725	3,122	11,774
Outlays	636	1,497	2,026	2,419	2,808	9,386

The federal government provided $12.7 billion in 1997 for research funded through the National Institutes of Health (NIH). About 60 percent of the NIH research budget is awarded to universities and other nonprofit institutions through research grants and contracts. The remainder is spent for research within the institutes, research contracts with industrial firms, research by state and local governments, foreign research, and administration.

A reduction in funding for NIH research could be justified by its rapid growth in recent years. Between 1986 and 1996, NIH expenditures doubled. If funds for NIH research were reduced to 90 percent of the 1997 funding level and held there, the savings in outlays from 1998 through 2002 would be $5.4 billion. Measured against the 1997 funding level adjusted for inflation, the savings would be about $9.4 billion. NIH could respond to such reductions by limiting its overhead reimbursements for research grants and by funding research projects at a reduced proportion of their costs, thereby encouraging researchers to find additional sources of support. (See DOM-62 for a related option.)

In 1997, NIH will allocate an estimated $7.1 billion --over half of its total funding--to competitively awarded grants for research projects. Reducing NIH funding might mean that fewer research grants could be awarded. Because funding for those projects is based on a rating system, the least promising projects would be dropped first. In 1995, NIH funded 27 percent of the grant applications it received. Reducing the number of grants that NIH awards could cause some biomedical researchers to leave the field or seek employment in the private sector.

The federal government is the mainstay of support for basic biomedical research on which advances in medical technology depend, and many people argue that the government should spend more, not less, on such research. Although industry accounts for nearly half of all spending on health research and development, it may spend too little on basic research. Such research is aimed at discovering fundamental properties of nature--it can result in new knowledge that has applications for many treatments. But the results of basic research usually cannot be appropriated by a single firm; rather, they increase a knowledge base that many firms use in their search for cures for specific diseases. Because a firm cannot fully appropriate the benefits of that kind of research, it may spend less on it than is socially optimal. Hence, many people argue that government has an important role in funding basic biomedical research.

Advocates of such funding point to the benefits of past federal support of basic research, which has played a role in the recent explosion of knowledge about molecular biology and human genetics. Such knowledge could help in the search for new diagnostic tests and cures for serious health conditions that threaten the lives or well-being of millions of people--for example, birth defects, arthritis, diabetes, multiple sclerosis, immune system diseases, heart disease, and cancer. The reduction in NIH expenditures set out in this option could slow progress in those important areas.

Proponents of a reduction in NIH spending for health research and development maintain that the effects of less government funding could be softened by increases in private-sector expenditures. To support their claim, they point to the recent increase in such funding: between 1984 and 1994, private-sector spending for health research and development tripled, even exceeding the increase in NIH spending.

DOM-53 LIMIT THE GOVERNMENT'S COST FOR THE FEHB PROGRAM BY ADOPTING AN EMPLOYEE VOUCHER PLAN

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Discretionary Spending						
Budget Authority	100	200	400	500	700	1,900
Outlays	100	200	400	500	700	1,900
Direct Spending						
Budget Authority	100	200	300	500	700	1,800
Outlays	100	200	300	500	700	1,800

NOTES: Estimates do not include any savings realized by the U.S. Postal Service.

In order to show the effect of the specific programmatic changes in this option, savings are calculated relative to spending that has been projected under the assumption that current laws and policies affecting this activity remain unchanged. That current-law spending projection differs from projections that are not based on any programmatic assumptions and simply assume that the 1997 level of funding for this activity (or that amount adjusted for inflation) is provided every year.

The Federal Employees Health Benefits (FEHB) program provides health insurance coverage for over 4 million active federal employees and annuitants, as well as their 4.6 million dependents and survivors, at an annual cost to the government of about $11 billion. In 1997, the government is expected to pay, on average, about 70 percent of the premiums for active employees and annuitants (including family coverage). Although some large private employers pick up the entire cost of health insurance coverage, most now require employees to share costs. Many firms have also significantly reduced benefits and coverage for retirees.

More so than private-sector employees, federal employees have been able to switch from high-cost to lower-cost plans to blunt the effects of rising premiums. The dollar cap on premium contributions in the cost-sharing structure of the FEHB program (discussed below) encourages that efficient behavior and intensifies competitive pressures on all participating plans to hold down premiums. In the 1991-1995 period, premiums of FEHB plans increased by an average of 4 percent a year, whereas the premiums paid by medium-size and large firms surveyed by Hay/Huggins Company, a benefits consulting firm, increased by 7 percent a year. Furthermore, FEHB plan rates increased by just 2.6 percent in 1997, after falling slightly last year. (Private firms also paid lower premiums in 1996.)

The FEHB program's cost sharing functions in the following way. For both employees and retirees, the government contributes 75 percent of the premium for the particular option selected by the enrollee, up to a cap on the contribution of $1,630 per year for individuals ($3,510 for families). Thus, the employee's share is at least 25 percent of any plan's premium. The dollar cap is set at 60 percent of the average high-option premiums for individuals and families in the "Big Six" plans--five large plans and a phantom plan that acts as a placeholder for a former participating insurer. (Employer costs are higher under the U.S. Postal Service's collective bargaining agreement.) Employees have an incentive not to choose plans with premiums above $2,180 ($4,680 for family coverage) because they pay 100 percent of the added cost of the premium. Thus, the dollar cap helps to control program costs.

By contrast, the requirement that enrollees pay 25 percent of the premium in plans with costs below the $2,180 cap weakens employees' incentives for price-conscious selection among those health plans and also blunts price competition among plans to attract partici-

pants. Under the current arrangement, an employee switching from a plan costing $2,100 to one costing $1,800 would reduce his or her annual cost by only $75.

This option simply makes a dollar cap universal by offering a flat voucher for health insurance premiums. Under that approach, the FEHB program would change so that it provided vouchers that paid the first $1,580 of the premium for employees and retirees ($3,470 for family coverage). Those amounts are based on the average government contributions in 1997 and would increase annually by the rate of inflation rather than by the rate of change in the Big Six premiums. The budgetary savings would come from indexing by inflation rather than by the growth of premiums--not from the voucher's enhanced incentives for reducing costs. Because the Congressional Budget Office (CBO) expects premiums to rise at about twice the rate of inflation, the government's savings would be considerable. In addition, the government would have more control over its premium contributions because they would be more predictable; the program would no longer be an open-ended entitlement.

Compared with current law, savings in discretionary spending from reduced payments for current employees and their dependents would total $1.9 billion over five years. Yet despite those savings, government spending for FEHB premiums for current employees would still be growing each year. If the goal was to hold government payments constant over time, additional policy actions would be required. Savings in direct spending, relative to current-law spending, from reduced benefits for retirees would reach $1.8 billion over five years.

This option would strengthen price competition among health plans in the FEHB program because almost all current enrollees would be faced with paying all of the incremental cost of premiums above the new cap; now, only about one-third are in that position. (CBO's estimates of savings, however, reflect only the effects of indexing by inflation and not any additional benefit from enhanced competition.) The prospect of paying more would make purchasers more price-conscious, and many plans would have a greater incentive to economize and offer lower premiums to retain their participants. Moreover, if premiums did not rise faster than inflation, enrollees would receive the full benefit. A final advantage is that in the lowest-cost plans, enrollees could look forward to the government's paying the entire premium. (Almost all plans currently have premiums above $1,580 for individuals and $3,470 for family coverage, and companies would have no incentive to offer a plan below those amounts.)

On the downside, enrollees as a group would pay an increasing share of their premiums--possibly just under 40 percent by 2002--if premium rates rose faster than the general rate of inflation that governs the proposed plan's growth. The added cost to enrollees could exceed $400 per worker in 2002 and more in later years. Although asking employees and retirees to pay more could encourage participants to select more cost-efficient plans, it could also place more participants in plans with inferior benefits. Because any added costs to employees would amount to a reduction in compensation, the government might find it harder to attract and retain high-quality employees. Finally, for current retirees and long-time federal workers, cuts in promised benefits amount to a retroactive change in the terms of their employment that lowers their standard of living. (For further discussion of the pros and cons of such cuts, see ENT-26.)

This option has an additional drawback in that it would strengthen the existing incentives for FEHB plans to seek out healthy people and for healthy people to select cheap plans. Those patterns isolate sick people in selected plans that then experience increases in costs and risk financial instability. The Office of Personnel Management, which administers the FEHB program, can review plans to try to limit that form of adverse selection. However, its effectiveness in limiting all adverse selection is doubtful.

DOM-54 ELIMINATE LOW-INCOME HOME ENERGY ASSISTANCE

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	1,300	1,300	1,300	1,300	1,300	6,500
Outlays	910	1,150	1,150	1,150	1,150	5,510
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	1,308	1,343	1,379	1,416	1,454	6,900
Outlays	912	1,179	1,211	1,243	1,276	5,821

NOTE: The Congressional Budget Office's baseline includes $300 million a year during the 1998-2002 period that is contingent on the President's designation of an emergency, together with about $1 billion a year in regular budget authority. The savings shown for 1998 would require a rescission of the $1 billion advance appropriation that is contained in the 1997 appropriation act.

The Low Income Home Energy Assistance Program (LIHEAP) helps pay the home energy costs of some low-income households. Authorized by the Omnibus Budget Reconciliation Act of 1981 and administered by the Department of Health and Human Services, LIHEAP funding for block grants to states is $1 billion in 1997. States may use the grants to help eligible households pay their home heating or cooling bills, meet energy-related emergencies, or fund low-cost weatherization projects.

Households may be eligible if they receive assistance from certain other programs, such as Aid to Families with Dependent Children or Supplemental Security Income, or if their income is low. In addition, federal law requires that states give preference to households with the highest energy costs (relative to income) when disbursing LIHEAP funds. Only a minority of eligible households actually receive assistance.

Eliminating LIHEAP would save $5.5 billion in federal outlays during the 1998-2002 period measured from the 1997 funding level or $5.8 billion measured from the 1997 level adjusted for inflation. LIHEAP was created in response to the rapid increases in the price of energy used in the home in the late 1970s and early 1980s. Since 1981, however, inflation in fuel prices has lagged far behind general inflation: fuel prices are up about 30 percent since 1981 in comparison with an overall inflation rate of about 70 percent. That fact might now warrant either eliminating or reducing LIHEAP.

The most recent LIHEAP appropriation of $1 billion, however, is about 60 percent below the program's original 1981 level of funding in real terms. The additional appropriation of $300 million cannot be spent unless the President designates an emergency. Further reductions would create hardships for some low-income households, forcing them to choose between paying for energy or for other household necessities. A further argument for retaining LIHEAP at some level is the flexibility it provides to respond quickly to a future spurt in energy prices.

DOM-55 END THE EXPANSION OF PROGRAMS FOR BUILDING NEW HOUSING UNITS FOR ELDERLY AND DISABLED PEOPLE

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	839	839	839	839	839	4,195
Outlays	0	0	159	327	663	1,149
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	860	883	907	931	956	4,537
Outlays	0	0	163	340	693	1,196

Since the early 1980s, federal activities to provide rental subsidies for low-income people have shifted sharply from constructing low-income housing to using less costly existing housing subsidized with vouchers and certificates. Two construction programs under which new commitments are still being made are the Section 202 and Section 811 programs for elderly and disabled people, respectively. For 1997, $839 million was appropriated to construct about 11,000 new units and subsidize their operating costs.

Eliminating funding for additional new units under those programs would reduce outlays by $1.1 billion over the 1998-2002 period measured from the 1997 funding level. Measured from the 1997 level adjusted for inflation, outlays would be reduced by $1.2 billion. Initially, savings in outlays would be substantially smaller than savings in budget authority because of the long lags involved in building new projects and thus in spending authorized funds.

Proponents of this option contend that expanding programs to construct new housing for elderly and disabled people is inappropriate in light of the cutbacks in other areas of spending. Moreover, they see little need to subsidize any new construction. The overwhelming housing problem today, they argue, is not a shortage of rental units but the inability of low-income households to afford those that exist. For example, average annual vacancy rates nationwide have consistently exceeded 7 percent since 1986, the highest level since 1968. Also, turnover among households living in existing assisted projects would ensure that some new elderly or disabled households were assisted each year. If elderly and disabled people needed more housing assistance, it could be provided less expensively through vouchers or certificates.

Opponents of the option argue that national statistics on the supply of rental units mask local shortages of certain types of units. In particular, many households with an elderly or disabled person need housing that can provide special social and physical services that are not generally available in their current residence. People who support subsidized construction of units for low-income elderly and disabled households also maintain that the high costs of producing such units require the certainty of a guaranteed stream of income that only project-based subsidies can provide.

DOM-56 REDUCE FEDERAL RENT SUBSIDIES BY SHIFTING SOME COSTS TO TENANTS

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Establish a Minimum Rent for Assisted Tenants of $50 per Month						
Section 8						
From the 1997 funding level						
Budget authority	15	15	15	15	10	70
Outlays	35	45	40	30	25	175
From the 1997 funding level adjusted for inflation						
Budget authority	35	50	50	50	50	235
Outlays	40	75	70	65	60	310
Public Housing Operating Subsidies[a]						
Budget authority	40	35	35	35	30	175
Outlays	20	35	35	35	35	160
Gradually Increase Payments by Tenants from 30 Percent to 35 Percent of Income						
Section 8						
From the 1997 funding level						
Budget authority	40	80	120	160	190	590
Outlays	80	190	280	360	420	1,330
From the 1997 funding level adjusted for inflation						
Budget authority	110	240	420	610	780	2,160
Outlays	90	280	480	690	920	2,460
Public Housing Operating Subsidies[a]						
Budget authority	90	180	280	380	490	1,420
Outlays	40	130	230	330	430	1,160
Give Preference on Waiting Lists to Working Families						
Section 8						
From the 1997 funding level						
Budget authority	0	2	2	2	3	9
Outlays	10	18	25	29	34	116
From the 1997 funding level adjusted for inflation						
Budget authority	5	35	45	85	90	260
Outlays	10	40	65	90	120	325
Public Housing Operating Subsidies[a]						
Budget authority	15	25	40	55	70	205
Outlays	5	20	30	45	60	160

a. For public housing operating subsidies, savings from these options are essentially the same whether measured from the 1997 funding level or from the 1997 level adjusted for inflation.

Most lower-income renters who receive federal rental assistance are aided through various Section 8 programs or the public housing program, all of which are administered by the Department of Housing and Urban Development (HUD). Those programs usually pay the difference between 30 percent of a household's income after certain adjustments and either the actual cost of the dwelling or, under the Section 8 voucher program, a payment standard. In 1996, the average federal expenditure per assisted household for all of HUD's rental housing programs combined was roughly $5,300. That amount includes both housing subsidies and fees paid to administering agencies.

Increasing the amount that assisted tenants contribute toward their housing costs could yield savings in outlays by reducing federal payments on their behalf. One option is to require assisted tenants to pay at least $50 per month toward their rent. Alternatively, the percentage of their adjusted income that tenants contribute toward their rent could be raised from 30 percent to 35 percent. Yet another option for reducing federal outlays is to increase the proportion of assisted tenants who have relatively high income and thus require relatively low federal payments. That shift could be accomplished by giving preference on waiting lists to eligible working families. However, realizing the savings from those options would require changing the authorizing legislation of rental assistance programs and cutting their annual appropriations.

Establish a Minimum Rent for Assisted Tenants of $50 per Month. Under current program rules, more than 10 percent of renters who receive aid through the various housing assistance programs contribute less than $50 per month toward their rent. In the Section 8 programs, establishing a minimum rent of $50 per month would reduce outlays over the 1998-2002 period by $175 million measured from the 1997 funding level or by $310 million measured from the 1997 level adjusted for inflation. The option would also save $160 million in operating subsidies for public housing. (In the public housing program, this option and those discussed below produce the same savings whether measured from the 1997 funding level or from the 1997 level adjusted for inflation. The savings are similar because they depend on tenants' income and on the number of assisted households, both of which are assumed to be the same for the two funding levels.)

An advantage of this strategy is that it would require all assisted tenants to pay at least a minimum amount for their housing. A $50 minimum payment is not large in comparison with the average monthly rent of more than $450 estimated to be paid in 1997 by unsubsidized renters with very low income. A disadvantage of the option is that it would raise the housing costs of the poorest assisted households--those with adjusted income below $2,000 per year--who would probably find it difficult to increase what they paid for rent.

Gradually Increase Payments by Tenants from 30 Percent to 35 Percent of Income. If tenants' contributions were gradually raised (by 1 percentage point per year) from 30 percent to 35 percent of income, outlays in the Section 8 programs would drop by $1.3 billion measured from the 1997 funding level, or by $2.5 billion measured from the 1997 level adjusted for inflation, over the 1998-2002 period. Outlays for public housing operating subsidies would fall by $1.2 billion over the same period.

An advantage of this option, compared with establishing a $50 minimum rent, is that it would not single out the poorest subsidized tenants for rent increases but would treat all subsidized tenants similarly. In addition, if rent payments were increased to 35 percent of income, tenants' out-of-pocket costs would still be well below the nearly 50 percent of income typically paid by eligible renters who receive no assistance. Nevertheless, the poorest households receiving assistance might have trouble increasing their rent payment. The option could also cause some higher-income renters in assisted housing projects to move to unassisted housing because it might now cost less to rent. As those tenants were replaced by new ones with lower income, the concentration of families with very low income in those projects would increase. In turn, the savings of this option could decrease somewhat, and the quality of life in the projects could deteriorate.

Give Preference on Waiting Lists to Working Families. Current rules for rental assistance programs give priority to applicants on waiting lists who have the most severe housing problems, which are defined in terms of the affordability and physical condition of their present housing units. Such families, on average, have substantially lower income than other income-

eligible families without severe housing problems. If the programs required that at least 50 percent of assisted units that became available each year (excluding units designed for elderly and disabled people, which are typically not suitable for occupancy by families) be offered to families that included an employed adult, the proportion of units occupied by eligible families with higher income would gradually increase. Because such tenants would pay a larger amount in rent, federal subsidies in the Section 8 program would decline over the 1998-2002 period by an estimated $116 million measured from the 1997 funding level. They would drop by $325 million measured from the 1997 level adjusted for inflation. Outlays for public housing operating subsidies would be reduced by $160 million over the period.

Giving priority to families with an employed adult would increase the incentive to work among income-eligible renters who were not receiving assistance. In addition, working families would serve as role models in subsidized housing projects and possibly make such projects more desirable to live in. Nevertheless, this option would shift a substantial proportion of the aid that became available each year away from households with the lowest income and the most severe housing problems.

DOM-57 REDUCE THE NUMBER OF FAMILIES RECEIVING RENTAL ASSISTANCE

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	40	215	325	415	495	1,490
Outlays	130	240	330	380	435	1,515
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	100	565	990	1,425	1,870	4,950
Outlays	165	495	835	1,180	1,535	4,210

Each year between 1975 and 1995, the Department of Housing and Urban Development (HUD) has increased the stock of Section 8 certificates and vouchers. Those forms of housing assistance allow recipients to live in housing of their own choosing, provided the units meet certain standards. Under the certificate program, HUD pays the difference between 30 percent of a recipient's income and a unit's actual rent (which today can range up to the 40th percentile of local rents). Under the voucher program, HUD pays the difference between 30 percent of a recipient's income and a payment standard. If the unit's actual rent exceeds the payment standard, the tenant pays the excess; if the unit's rent is less than the payment standard, the tenant may keep the difference. At the end of 1996, a total of about 1.4 million commitments for rental assistance were outstanding in both programs.

Outlays for the households assisted under these two programs are estimated to total around $7.9 billion in 1997. If the Congress extended the life of all commitments that are due to expire over the 1998-2002 period, the cost of those 1.4 million commitments would increase to around $9.1 billion by 2002, because the subsidy per household rises annually as a result of inflation. (The Omnibus Budget Reconciliation Act of 1990 directs the Congressional Budget Office to incorporate the cost of future renewals into its budget projections for housing aid when adjusting for inflation.) If, however, the Congress froze the budget authority for renewals of expiring contracts at the 1997 level, outlays for those programs would fall to $2.6 billion by 2002 because not enough funds would be available to renew all contracts. In addition, the number of assisted families would drop to about 384,000 by the end of 2002.

About 8 percent of vouchers and certificates are returned to public housing agencies each year by current recipients. Households turn in their vouchers, for example, when they move or when an increase in their income effectively reduces their subsidy to zero. Whether or not the Congress renewed all expiring contracts, the total number of outstanding certificates and vouchers, and thus outlays, could be reduced over time by reissuing only a portion of them. If half of the returned certificates and vouchers were not reissued, outlays would fall by $1.5 billion over the 1998-2002 period measured from the 1997 funding level or by $4.2 billion measured from the 1997 level adjusted for inflation.

An argument in support of this option is that no current recipients would lose their housing assistance as a result of it. Furthermore, some new income-eligible households would continue to be aided each year if half of the certificates and vouchers that were turned in were reissued.

An argument against the option is that it would hasten the current decline in the proportion of low-income renters who receive federal housing aid. Currently, about 30 percent of eligible renters receive assistance, and in spite of increases in the past in the number of certificates and vouchers, that share has started to decline because of growth in the number of eligible households.

DOM-58 REDUCE STAFFING AT VA MEDICAL FACILITIES BY 5 PERCENT

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	208	415	415	415	415	1,868
Outlays	187	411	415	415	415	1,843
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	215	434	449	465	481	2,044
Outlays	194	430	449	465	481	2,019

The Veterans Health Administration (VHA) of the Department of Veterans Affairs (VA) operates a nationwide medical care system that employed more than 191,000 people in 1996 and comprises 173 hospitals, 131 nursing homes, and 391 outpatient clinics. Most of the hospitals are large and well staffed, providing access to high-quality medical care for eligible veterans. In the past, a large portion of that care was delivered on an inpatient basis. Today, although some hospitals are treating greater numbers of inpatients, most have seen a steady decline in demand for such services as major surgery and common acute care procedures.

This option assumes that the Congress will direct that the VHA's workforce be reduced by 5 percent in 1998. The VA would be free to distribute that reduction among medical specialties and facilities as it deemed best. A 5 percent reduction, if applied across the board, would save $187 million in 1998 and $1.8 billion over five years measured from the 1997 funding level. Savings from the 1997 level adjusted for inflation would be $2.0 billion over the 1998-2002 period.

Several factors support a 5 percent reduction. The VA is adapting several of the managed care principles that have emerged in the private sector. For example, it has reorganized its delivery system into integrated networks and established primary care as the central focus of patient treatment, thus reducing its need for specialists. In addition, technological advances and recent legislative changes governing eligibility for care in the veterans health care system will enable the VA to provide more outpatient care, which means that more patients can be treated with fewer doctors and staff. Besides improving efficiency, this option would also mean that surgeons and specialists would see more patients, thereby providing such physicians with the "hands-on" experience needed to maintain high-quality care. (The drop in the amount of inpatient treatment has resulted in instances in which surgeons at some VA medical centers have performed few or no operations during some recent years.)

However, reducing staff by 5 percent could have disadvantages as well. To prevent shortages of some positions in some hospitals, the VA needs to exercise care in selecting the hospitals that must reduce their staff and the types of jobs to be eliminated. Workforce reductions need to be targeted toward those facilities that have experienced the greatest decrease in their workload. Otherwise, overburdened facilities could be forced to delay treatment for some patients.

DOM-59 SUSPEND FUNDING FOR MAJOR CONSTRUCTION OF VETERANS' MEDICAL FACILITIES

	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
	From the 1997 Funding Level					
Budget Authority	219	219	110	110	110	768
Outlays	1	36	103	149	155	444
	From the 1997 Funding Level Adjusted for Inflation					
Budget Authority	224	231	118	122	125	820
Outlays	1	37	107	156	164	465

Historically, the Department of Veterans Affairs (VA) has spent about $500 million a year on constructing and modernizing its medical care facilities. The VA continues to request funds to build new medical centers and to convert existing facilities in order to expand capacity and services. In recent years, however, the General Accounting Office (GAO) has concluded that some projects slated for construction are not the most prudent or most economical use of federal resources. This option would suspend funding for major VA construction projects, including new facilities and existing structures, for two years. Funding would then resume in 2000 at 50 percent of projected levels. This option would save $444 million in outlays between 1998 and 2002 measured from the 1997 funding level. Savings from the 1997 level adjusted for inflation would total $465 million over that five-year period.

Proponents of this option argue that funding new construction in the VA health care system makes no sense given GAO's assessment of unused inpatient hospital capacity in many areas of the country. Last year, the VA gained substantial authority to provide care on an outpatient basis and to contract with local health care providers. In addition, it recently established Veterans Integrated Service Networks (VISNs) to coordinate resources better within a geographic region. As a result, constructing and renovating facilities are not the only ways for the VA to meet the demand for health care. Before it spends more money to do either, proponents say, the VISNs should assess the long-term demand for care and begin exercising their contract authority to meet veterans' needs.

Opponents of this option argue that some locations are underserved by private-sector health care providers as well as by the VA. Thus, the department's new contract authority would not be effective in creating access to care in those areas. Without having funds available for construction, the VA might not be able to provide care to some deserving veterans simply because of where they live.

DOM-60 REDUCE FUNDING FOR LAW ENFORCEMENT EFFORTS TO CONTROL ILLEGAL DRUGS

	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
	From the 1997 Funding Level					
Budget Authority	2,088	2,088	2,088	2,088	2,088	10,440
Outlays	1,441	1,845	1,959	2,022	2,033	9,300
	From the 1997 Funding Level Adjusted for Inflation					
Budget Authority	2,149	2,213	2,280	2,348	2,419	11,409
Outlays	1,483	1,956	2,139	2,273	2,355	10,206

The federal government currently allocates just over $15 billion a year to controlling illegal drugs. Of that amount, approximately $10.2 billion goes toward controlling the supply and distribution of illegal drugs in this country. (The remainder goes to research and development, treatment, education, and other efforts to control the demand for drugs.) Interdiction and international activities account for about $2.1 billion of the $10.2 billion designated for efforts to control the supply of drugs.

The results of this formidable effort have been mixed, and both supporters and detractors of current law enforcement activities can find encouragement in recent trends. Some indicators show that drug use is significantly less prevalent than it was before federal efforts to control illegal drugs began, whereas other measures show that there has been no decline among certain important subgroups, especially hard-core users. With no clear proof of the efficacy of law enforcement efforts against drugs, some critics argue that the federal government could drastically reduce the resources directed toward the problem without affecting drug use over the long term.

This option would eliminate drug interdiction and international activities to control the supply of drugs. Those two efforts are the ones for which critics find the most questionable results. Through the mid-1990s, the Congress scaled back funding for those activities somewhat, although their appropriations for 1997 have risen over the 1996 funding level. Over five years, this option would save $9.3 billion measured from the 1997 funding level or $10.2 billion measured from the 1997 level adjusted for inflation.

This option would eliminate not only the drug supply activities conducted by domestic agencies but those of the Department of Defense as well. Defense-related efforts account for roughly one-fourth of interdiction and international activities, and efforts related to the administration of justice account for over two-fifths. The remainder is split between the budget functions for transportation and international affairs.

Proponents of reducing federal spending for interdiction and international activities argue that those efforts have not and cannot have a lasting effect on either the availability of or the demand for drugs. They have undoubtedly made it more difficult and more costly to grow, process, import, and distribute illegal drugs; but no hard evidence exists to support the hypothesis that intensified efforts have kept those drugs away from users or pushed prices up to levels that, in the long run, appreciably reduce the amount of drugs being purchased. In fact, some sources show that illicit drugs are less expensive and more readily available now than they were before the federal government began trying to control them.

In addition, current research shows that efforts to cut off the supply of drugs in their country of origin are not cost-effective, because producers' costs are only a small part of the users' charges. As drugs proceed farther along the processing and delivery chain, disruptions have a greater effect on retail prices and thus, one

assumes, a greater deterrent effect. This evidence suggests that to use law enforcement dollars to the greatest advantage, efforts should focus on the later stages of drug supply, particularly at the street level, where responsibility rests with state and local units of government. (Of course, efforts to control the supply of drugs at that level are tenuous for several reasons: competition among producers and distributors, the large markup from wholesale to retail prices, and the ability of distributors to dilute the drug and so maintain an end price that customers can afford.)

Proponents of cutbacks in law enforcement efforts also argue that factors related to demand, rather than supply, are dominant in determining drug use. In the past 10 years, most measures of substance abuse have shown significant declines, including lower levels of serious drug use and reductions in the number of people needing treatment. Although causality cannot be assigned, one could argue that the declines are independent of the level of federal resources allocated to controlling drug use. Proponents of reducing enforcement efforts claim that perceptions of health risks and societal attitudes, not enforcement, have probably reduced the demand for drugs among casual users. They also argue that stepped-up levels of enforcement could not have controlled past increases in the number of people with serious drug problems because hard-core users tend to become immune to such efforts. Instead of more enforcement, proponents argue for an expansion or reshaping of existing drug education and treatment programs and for more attention to societal problems, such as dysfunctional families, that contribute to overall drug use.

Opponents of cutting funds for drug enforcement and related efforts point to the successful side of those activities: the destruction of major drug trafficking organizations and the large quantities of illegal crops and drugs that have been destroyed or seized. Law enforcement planners believe that they can take some credit for the reductions seen in drug use since its apex in the mid-1980s; they argue that street prices would have been much lower, and the availability of drugs much greater, without extensive funding for criminal justice efforts. Given that overall drug use remains at unacceptably high levels and that several indicators show recent increases in some categories of use, they contend that it would be premature and irresponsible to reduce or shift current resources away from enforcement. They point out, moreover, that criminal justice efforts are needed as much to keep some control over illegal drug activity as to reduce it, and that many programs are hard-pressed to maintain their existing levels of effort even with current funding. For some agencies, cutting back their funding for interdiction and international efforts would also disrupt some of their activities that are not related to combating the use of drugs.

DOM-61 REDUCE FUNDING FOR JUSTICE ASSISTANCE AND CERTAIN JUSTICE-RELATED ACTIVITIES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
From the 1997 Funding Level						
Budget Authority	413	414	416	416	416	2,075
Outlays	274	354	399	416	416	1,859
From the 1997 Funding Level Adjusted for Inflation						
Budget Authority	424	436	451	462	475	2,248
Outlays	280	371	426	455	469	2,001

In addition to the law enforcement activities that the Department of Justice (DoJ) carries out directly, it and related government entities provide various types of law enforcement or legal assistance to individuals, community organizations, and state and local law enforcement agencies. That assistance can take the form of direct payments to individuals; financial grants to carry out projects or conduct research; information, training, or services; or in-kind grants. This option would reduce direct financial assistance by 20 percent while removing many of the restrictions on the use of those justice assistance grants. In addition, it would terminate the Legal Services Corporation (LSC) and the State Justice Institute (SJI). Those cuts can, of course, be considered separately.

In 1997, the federal government will provide state and local units of government and nonprofit organizations with justice assistance grants totaling nearly $661 million, excluding funds authorized by the 1994 Crime Control Act. That financial assistance is spread among many grant programs, each earmarking funds for a specific purpose. Consolidating those grants into one large formula grant for justice-related activities and reducing the total funding by 20 percent would generate outlay savings of $25 million in 1998 and $459 million through 2002 measured from the 1997 funding level. (Savings would be $25 million in 1998 and $489 million through 2002 measured from the 1997 level adjusted for inflation.)

For 1997, the Congress appropriated $283 million to fund the LSC and $6 million to fund the SJI. Eliminating funding for those two organizations as described below would save $248 million in 1998 and $1.4 billion over the 1998-2002 period measured from the 1997 funding level (or $254 million in 1998 and $1.5 billion through 2002 from the 1997 level adjusted for inflation). One-time costs of $5 million are subtracted from those savings estimates to reflect the costs of closing the LSC and SJI.

Reduce and Consolidate Direct Financial Assistance. The DoJ provides grants to states and localities, virtually all of which are distributed through the Bureau of Justice Assistance. Although the Crime Control Act increased funding for that type of assistance, this option focuses on programs authorized elsewhere. One of the largest such programs is the Anti-Drug Abuse Grants (or Byrne grants) program, which accounts for $361 million of the total $661 million for justice assistance grants. Other grants fund juvenile justice programs; support research, development, and evaluation of state justice programs; provide for the collection and analysis of justice statistics and information; or fund various other initiatives. Grants are classified and administered as either program grants, which are awarded to governments or nonprofit groups based on competitive applications, or formula grants, which allocate funds on the basis of population and other characteristics of the states.

Critics of federal spending for law enforcement assistance argue that DoJ directs much of its funding toward problems that are of low priority to recipient governments or that are not federal responsibilities.

They also contend that resources are used inefficiently and that with some modification, financial assistance could be scaled back substantially with no detrimental effects on the nation's law enforcement capabilities. The reductions in this option would entail consolidating the programs and changing the method by which funds are allocated. Most DoJ grants are categorical grants, which must be used for a specific purpose and in some cases require the receiving entity to provide matching funds. Specifying the grant's purpose could encourage units of government to spend money on programs that might not be a high priority in their jurisdiction. (From that point of view, applicants take grants because they are available rather than because of pressing need.) In contrast, block grants are dedicated to a broad category, and recipients are allowed to direct resources toward the programs within that category where the need is greatest. Shifting the method of distributing funds exclusively to block grants would enhance the ability of localities to address their law enforcement problems, even with fewer total resources.

Advocates of restructuring the federal government's grant programs also point to potential savings from lower administrative costs. Currently, each program grant requires that applicants file a proposal detailing how the grant will be used and what oversight will be conducted; in addition, recipients must submit follow-up reports on the program's achievements. Administrative expenses absorb a portion of the total grant that could be used to carry out program activities if the entire program was administered as a single formula grant.

Opponents of reducing funding for law enforcement point to the vital role of the federal government in augmenting the resources of the states and directing funds to areas of critical national need. In certain cases, they argue, the problems that those funds are addressing are national in scope; without the incentive of federal grants, the states might neglect those problems because of the scarcity of their resources. Without federal assistance, these advocates assert, the nation's streets would be far more dangerous than they already are. With crime rates soaring in most of the country, they argue, there should be more, rather than less, federal money allocated to battling crime.

Other areas, such as juvenile justice, also rely heavily on federal assistance for support. In many cases, states supplement federal funds with their own resources, thus raising the total level of resources directed at the problem. Reducing federal funding for those efforts would cause many of the states to terminate their programs and allocate their funds to other purposes. Proponents of the current categorical grant system maintain that if such grants are used effectively, they can provide the necessary incentive for states to address problems that federal lawmakers feel are most pressing. These advocates argue that the purpose of the grants is not to provide the resources for law enforcement efforts at all levels of government but to persuade states and localities to address problems that they otherwise might not. The federal effort to persuade states to enhance their civil rights protections is an example of how that practice has operated in the past.

Terminate the Legal Services Corporation and the State Justice Institute. The Legal Services Corporation is an independent, not-for-profit organization that supplies funding to programs providing free legal advice to the poor on civil matters. Since its inception in 1974, the LSC has been the subject of controversy. Critics such as the American Farm Bureau Federation charge that the activities of legal service lawyers too often focus on advancing social causes rather than on meeting the needs of poor people with routine legal problems; they also question the appropriateness of some of the tactics employed by LSC attorneys. In addition, such critics argue that providing legal services to the poor is not a federal responsibility. If funds for the LSC were eliminated, the responsibility for legal aid to the poor would rest with states and local governments. That change would make those services more responsive to local needs.

Terminating the LSC would save $247 million in 1998 and $1.4 billion through 2002 compared with extending the 1997 funding level. (Compared with the 1997 level adjusted for inflation, savings would be $253 million in 1998 and $1.5 billion through 2002.)

Those people in favor of continued support for the LSC argue that the federal government's funding of free legal services for poor people is the only way to ensure that all citizens receive legal representation, regardless of their financial situation. Removing federal funding in favor of support from private sources and pro bono services would diminish access to legal services. Proponents of the LSC argue that relying on uncertain and

indirect forms of assistance, rather than on a specifically targeted program of federal aid, is insufficient protection; the inadequacy of local and private support was one of the factors that led to direct federal financing in the first place. In addition, proponents point out that criticisms of the LSC have subsided in the past few years as a result of its eliminating some of its more controversial activities. They argue that thorough oversight and clear definition of permitted services would further curtail the activities that some observers find objectionable while still achieving the LSC's purpose.

The State Justice Institute was established in 1984 as a private, not-for-profit corporation to provide grants and undertake other activities to improve the administration of justice in the states. According to critics, the SJI has a negligible impact on the functioning of state justice systems. Most of its grants support research on improving the administration of justice, particularly the courts, but the SJI does little to disseminate or spur implementation of the results of those studies. Critics say the SJI's funds would be more effective if they were used to aid justice systems in implementing ideas that have been shown to work, rather than to produce more research. Opponents further argue that the institute has no effect on how justice systems function and that terminating it would cause no noticeable decline in services. Termination would, however, produce savings from the 1997 funding level of $1 million in 1998 and $21 million through 2002. (Measured from the 1997 funding level adjusted for inflation, savings would be $1 million in 1998 and $23 million through 2002.)

SJI proponents argue that the institute is a useful source of new ideas for improving state justice systems and a forum for officials of different state and federal agencies to exchange innovative ideas. They point to useful projects that the institute has funded, such as the one that reduced the average length of trials in San Jose from eight days to four, as examples of how the SJI's work has improved the administration of justice. Proponents further assert that the SJI is one of only a few institutions that focus on the courts, a critical element in any criminal justice system. They argue that without enhanced court administration, improvements in other areas of law enforcement cannot achieve their full potential.

DOM-62 REDUCE THE OVERHEAD RATE ON FEDERALLY SPONSORED UNIVERSITY RESEARCH

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			From the 1997 Funding Level			
Budget Authority	397	397	397	397	397	1,985
Outlays	157	333	388	395	396	1,669
			From the 1997 Funding Level Adjusted for Inflation			
Budget Authority	496	607	718	833	952	3,606
Outlays	196	460	622	741	858	2,877

Federal spending for research and development (R&D) performed at universities covers both direct and overhead costs (also known as indirect costs). The major direct costs of research are wages for scientists, engineers, and technicians and payments for materials and specialized equipment. Overhead costs allocated to federal research include research-related administrative overhead, library and student services, buildings and equipment used in common, and operations and maintenance. The National Institutes of Health (NIH) accounts for roughly half of federally sponsored university research. The National Science Foundation and the Department of Defense are also major sources of federal funds.

To calculate the overhead expenses that can be allocated to federal research, universities typically take most, but not all, of their direct costs (known as modified direct costs) and apply a prenegotiated payment rate to them in each of several categories. The sum of the rates from all of those categories is the overall payment rate for overhead expenses. Overall overhead payment rates could be set and frozen for all universities at 90 percent of their 1997 level. Doing so would save $157 million in 1998 and $1.7 billion over the 1998-2002 period relative to the 1997 funding level. Relative to the 1997 level adjusted for inflation, the option would save $196 million in 1998 and $2.9 billion over the 1998-2002 period. (The two sets of savings estimates differ because the inflation-adjusted level of funding for university R&D grants would have to be reduced to maintain the program at the 1997 funding level. Both sets of cuts would reduce the grant programs to the same level of funding in 2002.) To capture the savings from this option, the Congress would have to reduce the appropriations for university research by an amount corresponding to the mandated reduction in overhead costs.

The overhead payments for federally sponsored university research have increased faster than the direct costs of research, although growth has moderated in recent years. In 1972, each dollar of direct research funding paid to universities carried an additional 30 cents to cover the overhead costs allocated to federal research. Over the next decade, the share of overhead costs rose rapidly, finally leveling off at around 45 percent beginning in 1985. In 1994, the government paid 44 cents in indirect costs for each dollar spent on direct research. (Because payment rates are applied only to a portion of the total direct costs and because some agencies pay lower overhead rates for certain grants, the overall payment rate is higher than the ratio of overhead costs to direct costs.)

Overhead payments related to facilities have led the increase in costs, contrary to the impression given by well-publicized instances of questionable charges by universities to overhead payment accounts. Those charges have not been a major factor in the long-term growth of the share of overhead; in fact, auditors estimate that they account for only about 1 percent of those costs. Increases in the costs of operating and maintaining facilities--utilities, repairs, and janitorial services--have been the major component of the escalation in facilities costs in the past decade. And growth has con-

tinued even in the face of substantial drops in the price of energy. Higher costs for new buildings as a result of higher real estate prices, construction inflation, and interest costs have not been as significant.

Given the leveling off of overhead rates since the late 1980s, many analysts have questioned the need for continuing to focus on them. But that leveling has only been possible because of pressure on the administrative portion of overhead expenses. Overhead rates for facilities costs have continued to rise throughout the 1990s. The Administration has promulgated regulations that would require universities to provide more detailed information to justify their requests for reimbursement. It is also developing benchmarks for facilities costs to provide appropriate incentives for universities to hold down unnecessary expenses.

The rise in the share of funding for federally sponsored university research that goes to pay for overhead has fostered a concern that each federal dollar spent is now producing less actual research activity. Freezing the payment for overhead costs at 90 percent of its current level is meant to allay that concern. Under that policy, no single university would experience a very large reduction. But the reduction would hurt small and state universities that have kept their overhead costs low.

Some people might argue that competition by universities for grants should be sufficient to control the growth of overhead, and that the increases in the share of those costs are an unavoidable outcome of market forces and reflect real cost increases. The market for university research, however, tends to be concentrated among a relatively small number of universities overall and to be very concentrated in specific research areas. Because only a few institutions contend for a large share of federal spending for university R&D, it may not be reasonable to assume that competition is enough to hold down overhead costs. The higher overhead rates charged by the largest private universities that are major recipients of federal support may indicate a lack of competition. (There is also some evidence that those schools may charge much lower overhead rates on private grants.) If competition is indeed lacking, regulatory rules are an appropriate response to ensure that federal dollars are spent in the most productive way. Capping overhead payment rates would supply the discipline that the market has been unable to provide and motivate some institutions to become more efficient and cost-conscious.

Defenders of the current system contend that the increases in the overhead costs of university research are legitimate and that the nation's system of research universities will be hurt if universities are not permitted to recover the total cost of the research they conduct. Financially strapped institutions could be forced to reduce investments in new facilities, library collections, and the like. In fact, the success seen since 1985 in slowing the growth of overhead costs can be attributed in part to reduced spending for libraries. If inadequate library resources reduce the effectiveness of universities in performing their research and education missions in the future, the near-term savings gained by controlling overhead costs may not be worth the loss of future benefits to society as a whole.

University advocates make other points as well. The higher overhead rates of large private universities may not result from a lack of cost discipline; instead, because those institutions lack state government appropriations, they may simply be more assiduous in claiming all that is rightfully theirs. Another argument made against a reduction is that, because the data are lacking to determine the actual total costs of R&D, such a reduction could be set below the real cost-recovery point. Nevertheless, many in the research community would advocate reductions in the amount of overhead payments. However, they would apply the savings to increasing the number of research grants rather than reducing the deficit.

DOM-63 REDUCE THE NUMBER OF POLITICAL APPOINTEES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	33	102	90	37	73	335
Outlays	32	99	91	40	71	333

NOTES: Savings exclude reductions in agency contributions to federal employee retirement trust funds because those reductions do not affect the deficit.

In order to show the effect of the specific programmatic changes in this option, savings are calculated relative to spending that has been projected under the assumption that current laws and policies affecting this activity remain unchanged. That current-law spending projection differs from projections that are not based on any programmatic assumptions and simply assume that the 1997 level of funding for this activity (or that amount adjusted for inflation) is provided every year.

Generally, the term "political appointee" refers to employees of the federal government who are appointed by the President, some with and some without confirmation by the Senate, and to certain policy advisors hired at lower levels. For the purposes of this option, the term covers Cabinet Secretaries, agency heads, and other "executive-schedule" employees at the very top ranks of government; top managers and supervisors who are noncareer members of the Senior Executive Service; and confidential aides and policy advisors who are referred to as Schedule C employees. Total employment in such positions, according to Congressional Budget Office (CBO) projections, will average about 2,700 over the next five years. If the government instead capped the number of political appointees at 2,000, savings over the 1998-2002 period would total $333 million. The average salary for political appointees in CBO's calculations is estimated to be $88,700.

The National Performance Review (NPR) called for reductions in the number of federal managers and supervisors but made no specific reference to those who were political appointees. Yet the argument that the NPR put forth for reducing the number of government managers--that they add to organizational layering and complexity and therefore stifle initiative and limit flexibility--also applies to top managers who are political appointees.

Reports from several groups, including the National Commission on the Public Service and the Twentieth Century Fund, have called for cuts in the number of political appointees. The National Commission on the Public Service, also known as the Volcker Commission, called for limits similar to the one described here. In addition to the problem of excess organizational layering, the Volcker Commission described concerns associated with the lack of expertise in government operations and programs that characterizes many appointees. In political appointments, the commission noted, more weight is generally given to political loyalties than to knowledge of government. Moreover, few appointees are in office long enough to acquire the necessary skills and experience to master their job. That lack of experience, wrote the commission, means that political appointees in many instances are not effective in carrying out the policies of the President they serve and can disrupt the day-to-day operations of agencies. Another consequence is that career managers become frustrated and demoralized, making recruitment and retention difficult in the top ranks of the career civil service.

Those observers who defend the use and proliferation of political appointees cite the importance for a President of establishing control over the vast bureaucracy by having like-minded individuals and allies strategically located throughout the government. Those appointees, supporters note, form an important link to the electorate because they help to ensure leadership throughout government that is consistent with the philosophy of each elected President. Such appointees, moreover, can be a source of fresh perspectives and innovation. The high rate of turnover among many appointees, supporters argue, means that those officials make way for someone new before they reach the point of "burnout."

DOM-64 REPEAL THE SERVICE CONTRACT ACT

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	726	746	767	788	810	3,837
Outlays	689	745	766	787	809	3,796

The McNamara-O'Hara Service Contract Act of 1965 (SCA) sets basic labor standards for employees working on government contracts whose principal purpose is to furnish labor, such as laundry, custodial, and guard services. Contractors covered by the act generally must provide those employees with wages and fringe benefits that are at least equal to those prevailing in their locality or those contained in a collective bargaining agreement of the previous contractor. The Department of Labor measures prevailing wages in an area based on the specific wages and benefits earned by at least 50 percent of workers in a particular type of job, or on the weighted average of wages and benefits paid to workers in that type of job. The provision about collective bargaining agreements applies to successor contractors, regardless of whether their employees are covered by such an agreement.

In 1995, the SCA covered approximately 27,000 contracts, valued at more than $22 billion. The Department of Defense accounted for about 36 percent of that dollar value, the Army Corps of Engineers for 22 percent, and the National Aeronautics and Space Administration for 13 percent.

The cost of services procured by the federal government could be reduced by repealing the SCA. That action would reduce outlays by about $689 million in 1998 and by about $3.8 billion over the 1998-2002 period, provided federal agency appropriations were reduced to reflect the anticipated reduction in costs.

Federal procurement costs would fall because the option would promote greater competition among bidders. Repealing the SCA would give contractors added flexibility that could allow them to reduce the costs of providing services. Opponents of this option are concerned that it would allow bidders to undermine existing collective bargaining agreements. In addition, repealing the SCA would reduce the compensation of workers in some firms that provide services to the government, which in turn could reduce the quality of such services.

DOM-65 REPEAL OR MODIFY THE DAVIS-BACON ACT

Savings from Current-Law Spending	1998	1999	2000	2001	2002	Five-Year Cumulative Total
	Annual Savings (Millions of dollars)					
Repeal the Davis-Bacon Act						
Discretionary Savings						
Budget authority	826	854	877	901	926	4,384
Outlays	196	463	625	739	816	2,839
Mandatory Savings						
Budget authority	32	26	24	24	23	129
Outlays	28	27	25	24	24	128
Raise the Threshold to $1 Million						
Discretionary Savings						
Budget authority	321	323	332	341	350	1,667
Outlays	83	157	223	273	309	1,045
Mandatory Savings						
Budget authority	5	4	3	3	3	18
Outlays	2	3	3	3	3	14
Raise the Threshold to $250,000						
Discretionary Savings						
Budget authority	82	83	85	87	90	427
Outlays	33	53	67	75	80	308
Mandatory Savings						
Budget authority	1	1	1	1	1	5
Outlays	0	1	1	1	1	4
Change from Weekly to Monthly Wage Reporting						
Discretionary Savings						
Budget authority	94	100	103	106	109	512
Outlays	22	55	74	87	96	334
Mandatory Savings						
Budget authority	4	3	3	3	3	16
Outlays	1	3	3	3	3	13

Since 1935, the Davis-Bacon Act has required that "prevailing wages" be paid on all federally funded or federally assisted construction projects with contracts of $2,000 or more. The Department of Labor measures prevailing wages in an area based on the specific wages and benefits earned by at least 50 percent of workers in a particular type of job, or on the weighted average of wages and benefits paid to workers in that type of job. Those procedures, as well as the classifications of workers who receive prevailing wages, favor union wage rates in some cases.

In 1996, a total of $42 billion in federal discretionary funds was authorized for construction projects covered by the Davis-Bacon Act. Forty-nine percent of that amount went to transportation projects, 14 percent went to the Department of Defense, and 10 percent went to the Department of Housing and Urban Development.

The federal government could reduce outlays for construction by repealing the Davis-Bacon Act or by modifying it. Repealing the act would reduce discretionary outlays by about $196 million in 1998 and by about $2.8 billion over the 1998-2002 period. Mandatory spending would fall by $28 million in 1998 and by $128 million over the 1998-2002 period.

As an alternative, raising the threshold for determining which projects are covered by Davis-Bacon from $2,000 to $1 million would exclude about 23 percent of the value of all contracts currently covered by the act. Savings in that case would total about $83 million in 1998 and about $1 billion over the five-year period in discretionary outlays and $2 million and $14 million, respectively, in mandatory spending. Raising the threshold to $250,000 would exclude about 7.5 percent of the value of all contracts and save about $308 million over the five-year period in discretionary spending and about $4 million in mandatory spending.

Changing the requirements for wage-and-hour reporting for contracts covered by Davis-Bacon from a weekly to a monthly basis would reduce compliance costs for contractors by about $334 million over the five years in discretionary spending and $13 million in mandatory spending. (Altering Davis-Bacon would not automatically reduce federal spending, just the cost of construction projects. Therefore, the above estimates assume that the Congress would reduce federal appropriations for agencies to reflect the anticipated reduction in their construction costs.)

Repealing Davis-Bacon or raising the threshold for projects it covers would allow the federal government to spend less on construction. In addition, either action would probably increase the opportunities for employment that federal projects might offer to less skilled workers. However, such changes would lower the earnings of some construction workers. Opponents of these options also argue that eliminating or relaxing Davis-Bacon requirements could jeopardize the quality of federally funded or federally assisted construction projects. Reducing the requirements for wage-and-hour reporting would lessen the paperwork required of employers, but at the same time it might diminish the effectiveness of the Davis-Bacon Act by reducing the government's ability to detect noncompliance.

Chapter Four

Entitlements and Other Mandatory Spending

Entitlement programs provide benefits to all who are eligible to receive aid and choose to participate. Social Security, Medicare, Medicaid, food stamps, and farm price supports are major federal entitlements. Spending on those and other so-called mandatory programs accounts for more than one-half of all federal outlays. In 1997, this category is expected to cost $916 billion--about 12 percent of gross domestic product (GDP).

Under current law, outlays for mandatory programs are expected to increase at an average annual rate of 6.2 percent between 1997 and 2002. Under the Congressional Budget Office's (CBO's) baseline with discretionary spending adjusted for inflation after 1998, the rest of federal spending is projected to rise by an average of 2.5 percent a year during the same period. If current policies continue, entitlements could constitute nearly two-thirds of all federal spending by early in the next century. The aging of the baby-boom generation is expected to drive the fraction still higher over succeeding decades. Hence, the job of managing the growth of federal spending will be largely a matter of controlling the growth of mandatory outlays.

Spending on entitlement programs is primarily determined by the programs' rules that govern eligibility, the extent of participation, benefit levels, and the cost of providing noncash benefits, not by the annual appropriation process. A variety of other factors also increase or decrease outlays for entitlements, including demographic shifts, changes in providers' practices, and rates of inflation. Annual entitlement spending is, therefore, only partly under the direct control of the Congress.

The total that is spent on entitlements has grown rapidly since the early 1960s. As a share of GDP, however, much of the increase had already occurred by about 1975. Steadily increasing spending for retirement and disability programs, plus the creation of Medicare and Medicaid in 1965, spurred the growth of federal entitlement outlays from less than 6 percent of GDP in the early 1960s to about 11 percent in 1975. Since then, the share of national production committed to entitlement programs has grown more slowly and is expected to be about 13 percent by 2002.

Factors Underlying the Growth in Mandatory Spending

The largest force behind the continued growth in entitlement spending is the rapid rise in spending on Medicare and Medicaid. Although growth in the two programs has slowed in the past year, federal spending on them is expected to increase at an annual rate of about 8.3 percent between 1997 and 2002 if policies are not changed. By contrast, spending on other entitlements is expected to grow at an annual rate of about 5.1 percent during the 1997-2002 period without any changes in those programs. One convenient way of analyzing

growth in entitlement spending is to break it down by its major causes: growth in caseloads, automatic increases in benefits, growing use of medical services, and other factors.

Mounting caseloads account for only about one-fifth of the growth in entitlement programs. Compared with this year's outlays, spending will increase as a result of higher caseloads by $7 billion in 1998 and $57 billion in 2002 (see Table 4-1). The majority of that growth is concentrated in the Social Security and Medicare programs and is traceable to continued growth in the population of elderly and disabled people. Much of the rest is in Medicaid. Among those three programs, growth in caseloads alone boosts outlays by at least 14 percent apiece during the 1998-2002 period.

Automatic increases in benefits account for more than one-third of the growth in entitlement programs. All of the major retirement programs grant automatic cost-of-living adjustments (COLAs) to their beneficiaries. Those adjustments, which are pegged to the consumer price index, are expected to average about 3 percent a year through 2002. In 1997, outlays for programs with COLAs are nearing $500 billion, and COLAs are expected to add an extra $10 billion in 1998 and $74 billion in 2002.

Several other programs--chiefly the earned income tax credit (EITC), Food Stamps, and Medicare--are also automatically indexed to changes in prices. The income thresholds above which the EITC begins to be phased out are automatically adjusted for inflation using the

Table 4-1.
Sources of Growth in Mandatory Spending (By fiscal year, in billions of dollars)

	1998	1999	2000	2001	2002
Estimated Spending for Base Year 1997	916	916	916	916	916
Sources of Growth					
Increases in caseload	7	19	32	44	57
Automatic increases in benefits					
Cost-of-living adjustments	10	25	41	57	74
Other[a]	9	18	26	35	43
Other increases in benefits					
Increases in Medicare and Medicaid[b]	16	34	54	74	98
Growth in Social Security[c]	5	8	11	15	21
Irregular number of benefit payments[d]	0	0	8	-8	0
Change in outlays for deposit insurance	7	9	10	11	11
Remaining sources of growth	6	8	11	17	20
Total	60	121	194	245	324
Projected Spending	976	1,037	1,110	1,161	1,239

SOURCE: Congressional Budget Office.

a. Automatic increases in Food Stamp and child nutrition benefits, certain Medicare reimbursement rates, and the earned income credit under formulas specified by law.

b. All growth not attributed to caseloads and automatic increases in reimbursement rates.

c. All growth not attributed to caseloads and cost-of-living adjustments.

d. Represents baseline differences attributable to assumptions about the number of benefit checks that will be issued in a fiscal year. Supplemental Security Income, veterans' benefits, and Medicare payments to health maintenance organizations will pay 13 months of benefits in 2000, 11 months in 2001, and 12 in other years.

consumer price index. The Food Stamp program makes annual adjustments in its benefit payments according to changes in the Department of Agriculture's Thrifty Food Plan index. Medicare's payments to providers are based in part on special price indexes for the medical sector. The combined effect of indexing for these programs contributes an extra $9 billion in outlays in 1998 and $43 billion in 2002.

Medicaid is the only major entitlement program that is not automatically indexed for inflation at the federal level. Medicaid payments to providers are determined by the states and the federal government matches them. If states increase payments, federal payments will rise. (Higher payments to states are treated as "other" increases in Table 4-1.)

Another 45 percent of the growth in entitlement spending stems from increases that cannot be attributed to growth in caseloads or automatic adjustments in reimbursements. Those sources of growth are expected to become even more important over time. First, Medicaid spending grows with inflation even though it is not formally indexed (as discussed above). Second, the health programs have faced steadily rising costs per participant; that trend, which is often termed an increase in "intensity," reflects the consumption of more services per participant and the increasing use of more costly procedures. The residual growth in Medicare and Medicaid will amount to $16 billion in 1998 and $98 billion in 2002.

In most retirement programs, the average benefit grows faster than the COLA alone would explain. Social Security is a prime example. Because new retirees have more recent earnings that have been bolstered by real wage growth, their benefits generally exceed the monthly check of a long-time retiree who last earned a salary a decade or two ago and who has been receiving only cost-of-living adjustments since then. And because more women are working, more new retirees receive benefits based on their own earnings rather than a smaller, spouse's benefit. In Social Security alone, such phenomena are estimated to add $5 billion in 1998 and $21 billion in 2002.

Most of the remaining growth in benefit programs stems from rising benefits for new retirees in the civil service, military, and Railroad Retirement programs (fundamentally the same phenomenon as in Social Security); larger average benefits in unemployment compensation, a program that lacks an explicit COLA provision but pays amounts that are automatically linked to the recent earnings of its beneficiaries; a reduction in net income to bank and thrift insurance funds; and other sources. All of those factors together, however, contribute just $31 billion of the total $324 billion increase in mandatory spending between 1997 and 2002.

Pay-As-You-Go Rules

Since 1990, legislative proposals regarding new or existing entitlement spending programs have been constrained by a pay-as-you-go procedural requirement. The requirement generally prohibits legislated changes in spending on entitlements and other mandatory programs or legislated changes in governmental receipts from increasing the deficit. Under the Budget Enforcement Act of 1990, legislation to create a new entitlement program, expand an existing entitlement program, or cut taxes must be offset. This requirement, which is called pay-as-you-go neutrality, applies not to each new law individually but generally to the cumulative impact of all laws since 1990. It is enforced after the end of each Congressional session for the budget and preceding years. The pay-as-you-go requirement expires at the end of 1998, but presumably will be extended. Although the requirement has little relevance for putting together a deficit reduction plan, it has proven very useful in enforcing plans once they have been adopted. Thus, the saving options in this chapter can be used for deficit reduction and for paying for tax cuts or for new or expanded entitlements.

The pay-as-you-go rule is qualified in several ways. For instance, increases in direct spending or tax cuts for designated emergencies are exempt from the requirement. That emergency provision has only been used once--in March 1993--to extend Emergency Unemployment Compensation benefits. In addition, the Deficit Control Act of 1985 excludes the receipts and mandatory outlays of the Social Security retirement and disability trust funds from all calculations under the act, including the pay-as-you-go requirements. (Social Security is subject to its own set of rules, however, which are designed to hamper legislation that would lessen the balances in the trust funds.)

If the pay-as-you-go rule is violated, a sequestration--an automatic cutback applying to nonexempt mandatory programs--must take place. But many of the major benefit programs (such as Social Security, federal employees' retirement, and most means-tested programs) are wholly exempt from the automatic cuts. In addition, other programs (including Medicare and guaranteed student loans) are subject to limited cuts. Those rules leave a relatively small portion of mandatory spending to bear the brunt of a large pay-as-you-go sequestration. To date, however, there has never been a sequestration for a pay-as-you-go violation. For more information on the pay-as-you-go rule, see Chapter 1.

Program Trends and Options

In addition to suggestions for curtailing spending in specific programs, broad approaches to restraining the growth of entitlement spending have been suggested. One would place a cap on spending; another would create block grants; a third would apply a means test to restrict eligibility for benefits.

Many proposals have been made in the past that are aimed at placing an enforceable cap on mandatory spending. For example, many would tie the growth of spending for individual programs to inflation and an increase in the size of the eligible population. Often a transitional growth factor would be added, allowing the new policy to be phased in. Some proposals would also establish an across-the-board sequestration procedure to prevent a breach of the cap. Many advocates of this approach, however, have not accompanied the call for a mandatory cap with policy proposals to achieve the reductions in individual programs that would be needed to avoid sequestration. And in many cases, such a sequestration would involve large percentage cuts in benefits.[1]

Another way of capping mandatory spending is to replace open-ended matching programs with block grants to state or local authorities. For example, Title I of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (Public Law 104-193) combined several entitlement programs--Aid to Families with Dependent Children, Emergency Assistance, and the Job Opportunities and Basic Skills Training program--into a single block grant with a fixed funding level. Unlike across-the-board sequestrations, this approach could be used to achieve programmatic objectives and restrain the growth of entitlement spending.

Applying a means test to entitlement programs has also been suggested as a broad strategy for curbing the growth of such spending. One approach would control entitlements through a form of means-testing under which benefits for people with the highest incomes would be cut most. Several ways of carrying out the means-testing approach are discussed in ENT-45.

The other options in this chapter would reduce the growth of entitlement spending on a program-by-program basis. For instance, new program rules could limit those who qualify for benefits or reduce the amount of benefits provided (see ENT-22 and ENT-35 for examples) or cut payments to providers of services (see ENT-21). See also Chapter 5 for a consideration of ways to cut the Medicare and Medicaid programs over the next five years.

Social Security and Other Retirement and Disability Programs

Spending on Social Security, the largest entitlement program, is expected to total $364 billion in 1997 and provide benefits to more than 44 million elderly and severely disabled workers and members of their families (see Table 4-2). Outlays for benefits have grown over the years as a result of the increase in recipients among existing eligible groups, cost-of-living increases in benefits, and the higher real earnings--hence higher benefits--of newly retired workers. The Social Security Amendments of 1983 made major changes in the program to improve its financial standing. Although most changes involved financing and coverage, others delayed annual cost-of-living increases to recipients and made some benefits subject to taxation. The amendments also increased the age of eligibility for full retirement benefits from 65 to 67, phasing in the change during the first quarter of the next century.

1. For more information on using an enforceable cap, see Congressional Budget Office, *Mandatory Spending Control Mechanisms*, CBO Paper (February 1996).

Table 4-2.
CBO Baseline Projections for Mandatory Spending, Including Deposit Insurance
(By fiscal year, in billions of dollars)

	Actual 1996	1997	1998	1999	2000	2001	2002
			Means-Tested Programs				
Medicaid	92	99	105	114	123	133	144
Food Stamps[a]	25	25	25	27	28	29	29
Supplemental Security Income	24	28	26	28	32	29	34
Family Support	18	19	20	21	21	22	22
Veterans' Pensions	3	3	3	3	3	3	3
Child Nutrition	8	8	8	9	9	10	10
Earned Income Tax Credit	19	21	22	22	23	24	25
Student Loans	4	3	3	3	3	4	4
Other	4	4	4	5	5	6	6
Total	196	208	217	232	249	259	277
			Non-Means-Tested Programs				
Social Security	347	364	381	400	420	441	464
Medicare[b]	191	209	227	248	273	286	314
Subtotal	538	573	608	648	693	726	777
Other Retirement and Disability							
Federal civilian[c]	44	46	49	51	54	57	60
Military	29	30	31	32	33	34	35
Other	5	5	5	5	5	5	5
Subtotal	77	81	84	88	92	96	100
Unemployment Compensation	22	23	24	26	28	29	30
Deposit Insurance	-8	-12	-4	-3	-1	d	d
Other Programs							
Veterans' benefits[e]	17	19	20	21	23	20	22
Farm price supports	5	6	7	7	7	5	5
Social services	5	5	5	5	6	6	6
Credit reform liquidating accounts	-9	-7	-7	-7	-7	-6	-6
Other[f]	14	19	21	19	22	26	27
Subtotal	33	42	46	46	50	51	54
Total	662	707	758	805	861	902	962
			Total				
All Mandatory Spending	859	916	976	1,037	1,110	1,161	1,239

SOURCE: Congressional Budget Office.
NOTE: Spending for benefit programs shown above generally excludes administrative costs, which are discretionary.
a. Includes nutrition assistance to Puerto Rico.
b. Spending for Medicare excludes premiums, which are considered offsetting receipts.
c. Includes Civil Service, Foreign Service, Coast Guard, other retirement programs, and annuitants' health benefits.
d. Less than $500 million.
e. Includes veterans' compensation, readjustment benefits, life insurance, and housing programs.
f. Includes the Universal Service Fund.

Baseline projections for Social Security spending reflect the influence of the above factors on the program through 2002. The increase in the number of aged people benefiting from Social Security has slowed in recent years. Although that trend will continue for several more years, as the relatively small group of people born during the 1930s becomes eligible, it will be partially offset by the aging of the baby boomers as they move into their late 40s and early 50s, when disability incidence rates are higher.

Although the Social Security program has special rules under the Deficit Control Act of 1985 and is not included in the pay-as-you-go budget discipline, it nonetheless accounts for two-fifths of entitlement spending; cutting it would reduce the total budget deficit. Options to alter the program's benefit structure are considered in ENT-31 through ENT-34. In addition, restraint on the annual cost-of-living adjustment for Social Security is a major component of ENT-44, which considers non-means-tested retirement and disability entitlements. Similar options, as well as more fundamental changes in the Social Security program, were considered in the *Report of the 1994-1996 Advisory Council on Social Security*. The major focus of the council was to develop recommendations for improving the long-term financial status of the program.

Other retirement and disability programs--which will cost $81 billion in 1997, or about 9 percent of entitlement spending--are dominated by the government's civilian and military retirement programs. Spending on those programs is influenced by factors similar to the ones affecting Social Security, and outlays are expected to increase at similar rates in CBO's baseline. ENT-26 and ENT-44 contain options that would modify benefits for former federal workers.

Means-Tested Entitlement Programs Excluding Medicaid

Means-tested entitlement programs include Food Stamps; Supplemental Security Income (SSI), which is for the low-income aged, blind, and severely disabled; pensions for needy veterans who are aged or disabled; child nutrition (such as the School Lunch Program); and the refundable portion of the EITC, which benefits low-income working families with children. Costing $109 billion in 1997, expenditures on means-tested programs other than Medicaid represent approximately 12 percent of entitlement spending.

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, otherwise known as welfare reform, partially offsets the growth in mandatory spending. Welfare reform is expected to reduce the deficit by $51 billion in the period 1998 through 2002. Most of the savings are in the SSI and Food Stamp programs, both of which will be reduced by $5 billion in 2002. The reduction in those two programs' benefits results from restricting the eligibility of legal aliens for welfare benefits, tightening the eligibility requirements for disabled children under the SSI program, and modifying the benefits and eligibility requirements of the Food Stamp program.

Annual federal spending for the refundable portion of the EITC rose from about $1 billion in the early 1980s to $9 billion in 1993, largely as a result of the expansions included in the Tax Reform Act of 1986 and the Omnibus Budget Reconciliation Act of 1990 (OBRA-90). As a result of changes in OBRA-93 that increased benefits, spending for the EITC is projected to double approximately, from $11 billion in 1994 to $21 billion in 1997, before leveling off. ENT-24 and ENT-28 would reduce federal spending on certain means-tested programs by targeting benefits more narrowly and limiting federal payments for administering some of those programs.

Subsidized student loans are another means-tested entitlement, although the restrictions are not as stringent as for many such programs. (Unsubsidized loans are also available for those students who are from families with higher incomes.) Students can borrow through those programs to attend postsecondary educational institutions. The annual budgetary cost of student loans --as well as that of other federal loan and loan guarantee programs--consists of the present value of current and expected future subsidies for loans that originate in that specific year. Student loans are not as directed toward needy students as are Pell grants, which constitute the main discretionary program providing aid to postsecondary students. CBO's baseline projects that program costs for student loans will total between about $3 billion and $4 billion through 2002. ENT-20 through ENT-22 would reduce the federal cost of those loans by reallocating part of the cost to lenders, schools, students, and their families.

Aid to Jobless Workers

The Federal-State Unemployment Compensation Program (UC) and the much smaller federal Trade Adjustment Assistance (TAA) program are entitlement programs that provide assistance specifically to unemployed workers. The TAA program offers income-replacement benefits, training, and related services to workers unemployed as a result of competition from imports. ENT-27 would eliminate this program.

CBO's baseline for the UC program projects that spending will rise to about $30 billion in 2002. Unemployment compensation is included in the federal budget, but state laws set most of the benefit and tax provisions. Thus, states can generally offset federal options that would reduce regular UC spending, and permanent budgetary savings cannot usually be attributed to federal changes in regular UC rules. As a result, this chapter does not include federal options limiting regular UC benefits.

Non-Means-Tested Veterans' Programs

Veterans' benefits constitute another category of federal entitlement spending. CBO projects that non-means-tested entitlement spending for veterans' compensation, readjustment benefits, life insurance, and housing programs will total about $19 billion in 1997, or about 2 percent of all entitlement spending during that year. ENT-35 through ENT-40 would restrict federal spending on veterans' benefits by limiting eligibility for certain programs and raising costs to participants. In addition, ENT-40 would reduce Social Security disability payments for some people who also receive veterans' compensation.

Farm Income Support Programs

The Federal Agricultural Improvement and Reform Act of 1996, which governs most federal support for farmers, is substantially changing many farm programs. Farmers growing the major supported crops--wheat, corn and other feed grains, cotton, and rice--need no longer set aside a portion of their tillable land to be eligible for payments, as they have for many years. And unlike the practice in the past, the size of the direct payment generally will not change with commodity prices. Rather, farmers who signed so-called "production flexibility contracts" will get government checks according to a formula that divides a fixed amount of money among crops and then among farmers based on their eligible acreage and past yields. Farmers must comply with some conservation rules to stay eligible for payments. Few farmers have declined.

Some protection from low prices remains, but at reduced levels. The result is that producers of major crops will respond more to the needs of the market and less to the requirements of government programs. Most analysts believe that this increased market orientation will be good for agriculture generally, although some farmers will be hurt by changes in the federal safety net.

The new law also changed the dairy program. For decades, prices of dairy products have been supported through direct government purchases. Support prices are now being cut and price supporting purchases will end in 1999. Dairy producers will still benefit from federal regulations that keep the price of milk used for fluid products above that used for manufactured products, such as butter, cheese, and nonfat dry milk.

The government also supports peanuts, tobacco, and sugar by different combinations of production controls, import restraints, and price-supporting loans. For those crops, most of the support farmers receive is through market prices that are kept artificially high by government programs.

CBO projects that spending for farm income support programs will be $6 billion in 1997 (up from $5 billion in 1996), rising to $7 billion in 1998 before declining to $5 billion by 2002. (Agriculture also benefits from programs funded through appropriations. Such discretionary programs, including agricultural research and extension, some export promotion, and farm loan programs, are covered in Chapter 3.)

Four options reducing agricultural spending are included in this chapter. ENT-07 through ENT-09 would lower federal outlays by cutting programs that subsidize or promote exports of farm commodities. ENT-10 would increase an assessment that applies to growers and purchasers of tobacco.

User Fees and Other Changes in Direct Spending

Fees can be charged to users of resources, facilities, or services provided by the federal government to raise funds to help pay for them and promote their more efficient use. Options describing modified or higher fees in a variety of areas are included in this chapter (ENT-01 through ENT-06, ENT-11, ENT-16 through ENT-19, ENT-23, ENT-46, and ENT-47). For example, the federal government could index nuclear waste disposal fees for inflation or establish charges for airport takeoff and landing slots.

Receipts from fees would be treated under the Deficit Control Act of 1985 as spending changes in entitlements or mandatory programs if the legislation changing the fees originated in an authorizing committee. In that case, the added receipts from fees would be credited to the pay-as-you-go scorecard.

ENT-01 RESTRUCTURE THE POWER MARKETING ADMINISTRATIONS TO CHARGE HIGHER RATES AND END DIRECT SUBSIDIES

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	0	210	210	210	210	840

Hydroelectric power generated at 129 federally owned plants is sold by power marketing administrations (PMAs), which are agencies of the Department of Energy. In recent years those federally owned hydroelectric plants have generated about 4 percent of the electricity sold in the United States. Under current law, the PMAs must first offer to sell most of this power locally to rural electric cooperatives, municipal utilities, and other publicly owned utilities (collectively known as preference customers). Any excess PMA power not purchased by preference customers can be sold to investor-owned utilities. Current law requires that those sales be made at cost. This option would eliminate the requirement to offer PMA power first to preferred customers and would allow the PMAs to sell it to the highest bidder. It would also eliminate requirements that the Bonneville Power Administration (BPA) subsidize the residential customers of certain investor-owned utilities in the Northwest.

The continuing restructuring of markets for wholesale electric power is lowering prices for consumers throughout the nation. (Wholesale transactions are generally between power generators and local distribution companies.) The PMAs have long been among the cheapest sources of wholesale power. But the growing presence of low-cost, competitive suppliers and the rising operating costs of aging federal facilities make it unclear how much longer the federal cost advantage can last. Establishing a market rate for PMA power now, while market rates are still above federal rates, would reduce the current deficit. That change might also stem the need for future taxpayer support by stimulating the PMAs to make more cost-effective operating and investing decisions than in the past.

In 1995, the preference customers for PMA power paid an average 2.4 cents per kilowatt-hour (kWh). The Southwestern Power Administration charged the lowest rates (1.3 cents per kWh); the BPA charged the highest (2.6 cents per kWh). Nationwide, private utilities charged municipal and cooperative distributors an average 3.8 cents per kWh. Market rates for new supplies of power--much of it from independent power producers (IPPs)--are generally above PMA rates as well. Only the BPA faces direct competition from IPP rates. This option to establish market rates for PMA power assumes that agencies other than the BPA will raise rates by an average of 10 percent and make federal power more broadly available than today. The BPA, which has recently offered a more competitive, five-year rate package to its preference customers, would not raise rates. Additional receipts generated by increasing rates would total about $65 million a year.

This option would also reduce operating costs of the Bonneville Power Administration by about $145 million a year by ending the agency's residential exchange program. That program lowers the cost of electricity to residential customers of investor-owned utilities in the Pacific Northwest by requiring the BPA to purchase high-cost power from those utilities in exchange for low-cost federal hydroelectric power.

The additional revenues from this option could be used by the PMAs to repay the $14 billion that it cost to construct existing plants. In addition, the current practice of selling power below market rates leads to levels of electricity consumption in PMA service areas that are inconsistent with the government's energy conservation and environmental objectives. Conversely, critics of this option argue that large rate increases that could result from it would adversely affect regional economies. Proponents of continuing to reserve PMA power for use by public utilities maintain that doing so is a more appropriate use of the government's hydro-

electric resources than allowing private companies to profit from the sale of public resources. Proponents of the status quo also say that publicly owned utilities have encouraged widespread use of electricity (especially in rural areas) at low rates.

In 1996, the President signed legislation authorizing the sale of the smallest PMA, the Alaska Power Administration. In 1995, the House Committee on Resources also approved legislation authorizing the sale of the Southeastern Power Administration.

ENT-02 CHANGE THE REVENUE-SHARING FORMULA FROM A GROSS-RECEIPT TO A NET-RECEIPT BASIS FOR COMMERCIAL ACTIVITIES ON FEDERAL LANDS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	180	190	195	200	205	970
Outlays	180	190	195	200	205	970

The federal government owns more than 650 million acres of public lands--nearly one-third of the United States' land mass. Those public lands contain a rich supply of renewable and nonrenewable natural resources: timber, coal, forage for livestock, oil and natural gas, and many nonfuel minerals. Private interests are given access to much of the federal land to develop its resources and generally pay fees to the federal government based on the commercial returns realized. In many cases, the federal government allots a percentage of those receipts to the states and counties containing the resources, as compensation for tax revenues they did not receive from the federal lands within their boundaries. The federal government typically calculates those allotments on a gross-receipt basis before taking account of its program costs. The practice has an important budgetary disadvantage: it sometimes causes the federal government's program costs to exceed its share of receipts. Shifting to a net rather than a gross basis would reduce net federal outlays by $970 million over the 1998-2002 period.

In most cases, the Forest Service is required to allot 25 percent of its gross receipts from commercial activities in the national forests to the respective states and counties. The Department of the Interior allots 4 percent of its timber receipts, an average of 18 percent of its grazing fees, and 4 percent of its mining fees from "common variety" materials to the states; the department's Minerals Management Service (MMS) allots 50 percent of its adjusted onshore oil, gas, and other mineral receipts to the states. The MMS deducts 50 percent of its administrative costs from the gross-receipt calculation before distributing those payments. In effect, the states share 25 percent of the burden of those administrative costs. On certain federal lands--specifically, national forests affected by protection of the spotted owl and the Oregon and California grant lands--payments to states and counties are based on an average of payments made in the past.

Federal savings would be substantial if the Congress required those agencies to deduct their full program costs from their gross receipts before paying the states. The regional jurisdictions would continue to receive the same allotted percentage of net federal receipts and would accrue receipt shares totaling about $685 million in 1998. Net federal outlays would be reduced by about $180 million in 1998 and by about $970 million over five years (1998-2002). The projected savings do not include potential federal cost increases under the Payment in Lieu of Taxes (PILT) program. That program was established in 1976 to offset the effects of nontaxable federal lands on the budgets of local governments. The payments in lieu of taxes to the states are partially reduced by the amount of revenue-sharing payments from federal agencies. Payments under the PILT program would increase by about $30 million a year beginning in fiscal year 1999 if net program receipts were shared and the Congress appropriated such an increase.

Changing the revenue-sharing formula to a net-receipt basis would probably have a negative impact on the economies of the respective states and counties. A significant source of revenue for some states and counties would be reduced. That reduction in revenues might lead to serious cuts in state and county spending. To help alleviate that hardship, the federal agencies could switch gradually to the net-receipt basis over several years.

ENT-03 CHARGE ROYALTIES AND HOLDING FEES FOR HARDROCK MINING ON FEDERAL LANDS

Addition to Current-Law Receipts	Annual Added Receipts (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Royalty on Net Proceeds	2	12	8	8	8	38
Royalty on Gross Proceeds	12	55	39	39	39	184
Reauthorize Holding Fees	0	34	34	34	34	136

The General Mining Law of 1872 governs access to hardrock minerals--including gold, silver, copper, and uranium--on public lands. Any holder of more than 10 mining claims on public lands must pay an annual holding fee of $100 per claim, and all claimholders must pay a $25 location fee when recording a claim. But, unlike producers of fossil fuels and other minerals from public lands, miners do not pay royalties to the government on the value of the hardrock minerals. Also, authorization to collect the current holding fee expires in 1998. Estimates place the current gross value of hardrock minerals on public lands at about $700 million--a sum that has diminished greatly in the past few years with increased patenting activity. (In patenting, miners gain title to public lands by paying a one-time fee of $2.50 or $5 an acre.)

The Congress has debated reform of the General Mining Law for the past several years. The 104th Congress included reform measures as part of the Balanced Budget Act of 1995 (H.R. 2491), which the President vetoed. That reform would have required miners to pay a 5 percent royalty on the net proceeds from hardrock mining (that is, sales revenues minus the costs of mining, separation, and transportation). In the 103rd Congress, the House passed legislation (H.R. 322) that would have imposed an 8 percent royalty on the gross proceeds (that is, sales revenues) from mining.

This option considers two types of 8 percent royalties that the Congress could impose on hardrock mineral production from public lands: one on net proceeds (as defined in H.R. 2491), and one on gross proceeds (as defined in H.R. 322). The option would also reauthorize the current holding fee when it expires in 1998 and assumes that such fees would be recorded as offsetting receipts to the Treasury. They are currently counted as offsetting collections to appropriations. Total deficit reduction during the 1998-2002 period from a net proceeds royalty would be about $38 million. Over the same period, deficit reduction from a royalty on gross proceeds would be about $184 million, and from reauthorization of holding and location fees, about $136 million. Those estimates assume that states in which the mining took place would receive 25 percent of the federal royalty receipts. They also assume that there would be no further patenting of public lands.

People in favor of reforming mining law--many of them in the environmental community--argue that low holding fees and zero royalties reduce the costs of production from federal lands compared with those from private lands (where payment of royalties is the rule). That policy encourages overdevelopment of public lands. Mineral reform could encourage other uses of public lands, such as recreation and wilderness conservation.

Opponents of reform argue that without free access to public resources, exploration for hardrock minerals in this country--especially by small miners--would decline. They also argue that royalties would diminish the profitability of many mines, leading to scaled-back operations or closure and, as a result, adverse economic consequences for mining communities in the western states. Because many mineral prices are set in world markets, miners would be unable to pass along new royalty costs to consumers.

Administrative costs to put a net proceeds royalty in place would most likely be greater than those for a gross proceeds royalty, both for the federal government and for miners.

ENT-04 REFORM PUBLIC LAND RECREATION FEE POLICIES

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	200	207	215	222	231	1,075

The federal government owns and manages more than 650 million acres of land in the United States. The land is used for a wide variety of purposes, including recreation and associated private concessions for which the government is compensated by fees. Those fees may not provide the government with a fair return. Better pricing could decrease net federal outlays by $200 million in 1998 and by $1.1 billion over five years, alleviate overuse by reducing recreational activity, and encourage quality concessions.

All federal agencies that hold major tracts of land allow recreational access and provide some services to visitors. The services range from maintaining rough hiking trails to operating fully developed recreational facilities, such as campsites and marinas. Entrance and user fees are charged at some locations. The Congress authorized new and expanded fees in 1994, but those still cover only a small portion of the direct costs of visitor services. In 1996, the Congress also approved a three-year (1997-1999) demonstration project involving new fee initiatives at up to 100 park locations. Amounts charged under that temporary authority, however--about $130 million over the demonstration period --will be used for park improvements, not for visitor services.

In 1996, the National Park Service spent an estimated $250 million on visitor services and recovered about $65 million in net fees. Requiring the Park Service to charge fees to cover those direct costs as well as the associated costs of collection would shift that burden to the beneficiaries of the services and improve pricing of public land use. Such fees would lower net federal outlays by $200 million in 1998 and by $1.1 billion over a period of five years.

Arguments against additional increases in fees reflect the view that the national parks and public lands are a vital and accessible part of our national heritage. The social benefits of visits to the parks--especially for the elderly and the poor--far exceed the costs of providing them.

Additional fee increases, however, would shift the costs of police protection and other services from taxpayers to the users of parks. The overcrowding that is now a problem at many parks could be alleviated by an appropriate fee structure. Visits by the poor and the elderly could be encouraged by free-access days or by the cross-subsidization of urban parks, in which fees collected at some parks would be used to offset the costs of maintaining others that have lower or no charges.

ENT-05 RAISE GRAZING FEES ON PUBLIC LANDS

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	8	13	15	15	15	66

The federal government owns and manages more than 650 million acres of land in the United States. The land is used for many purposes, including grazing of privately owned livestock. Cattle owners compensate the government for use of the land by paying grazing fees. Those fees may not provide the public with a fair return. In addition, underpricing may lead to overuse. Better pricing could increase federal receipts by $8 million in 1998 and $66 million over 1998-2002 and alleviate overuse by reducing grazing activity.

The Forest Service and the Bureau of Land Management administer livestock grazing on approximately 262 million acres of public rangelands in the West. Those lands provide ranchers with about 31,000 grazing allotments and, at current leasing rates, roughly 20 million animal-unit months (AUMs) of grazing each year. In 1990, the appraised value of public rangeland in six Western states varied between $5 and $10 per AUM. A 1993 study indicated that the Forest Service and the Bureau of Land Management spent $4.60 per AUM in that year to manage their rangelands for grazing. By contrast, the 1994 permit fee was set at $1.98 per AUM under the formula established by the Congress. (The 1996 fee is $1.35 per AUM under the current formula.) The 1993 weighted average lease rate for grazing on private lands in 11 Western states was $10.03 per AUM. Thus, the current fee structure may represent a subsidy for many ranchers who participate in the program.

Various proposals have been introduced in the Congress to increase grazing fees. The proposals would either adjust the fee-setting indexes to reflect livestock markets and leasing rates on private rangeland or replace the existing fee structure with a new, modified market value. An increase in federal receipts resulting from either of those measures depends on the degree to which ranchers reduce their use of AUMs in response to increased fees. One recent proposal would increase grazing fees to $4.00 per AUM over three years. From the third year on, the fee would then be adjusted according to a forage value index based on private land rents, and annual changes in the fee would not exceed 25 percent. The higher fee would increase federal receipts, measured against current law, by approximately $66 million during the 1998-2002 period. Those are the amounts that would be left in the Treasury after deducting the share of receipts paid to states and counties from the increased fees. They do not reflect any additional appropriations for range improvements that could result from added receipts.

Proponents of fee increases believe that low fees subsidize ranchers and contribute to overgrazing and deteriorated range conditions. As an alternative to setting fees administratively, grazing rights might be allocated through a competitive bid process such as that now used by the Forest Service in its Eastern and Southern regions. Disadvantages of that approach are high administrative costs and limited competition. In many cases, only the owners of private lands adjacent to federal lease tracts would be willing to bid for grazing rights. (Current law requires permit holders to own a base property near the federal lease tract). Permit holders are not granted complete control over third-party access to the permit area, but may hope to maintain control by owning and regulating the private lands surrounding the lease tract.

Opponents of increased fees for grazing on public lands believe that higher fees overstate the value of public lands compared with private properties that might be in better condition or offer more favorable lease terms. In addition, low fees encourage permit holders to invest in range improvements. Further, increased fees would cut profit margins for ranchers who use public land, perhaps encouraging them to exceed

the grazing limits and forgo range improvements. Between 1979 and 1983, ranchers spent 16 cents per AUM per year, on average, for range improvements. Under current law, the federal government allocates a fixed percentage of grazing-fee revenue to the Range Betterment Fund. The increase in federal expenditures on range improvements implied by higher fees would offset any decrease in private range improvements.

ENT-06 RECOVER COSTS ASSOCIATED WITH ADMINISTERING U.S. ARMY CORPS OF ENGINEERS PERMITTING PROGRAMS

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	0	8	17	17	18	60

The Department of the Army, through the Army Corps of Engineers, administers laws pertaining to the regulation of the navigable waters of the United States, including wetlands. Section 404 of the Clean Water Act requires that any private, commercial, or government agent wishing to dredge or dump fill material in waters or wetlands of the United States must obtain a permit from the Corps. The Corps could recover a portion of its annual regulatory costs by increasing permit fees. Imposing one type of fee structure for section 404 of the Clean Water Act--a cost-of-service fee on commercial applicants--would generate revenue of $8 million in 1999 and $60 million over the 1998-2002 period.

In fiscal year 1997, the Corps estimates that it will receive approximately 65,000 applications for section 404 permits to discharge dredged or fill materials. Under section 404, the Corps is required to evaluate each permit application and approve or deny it on the basis of expert opinion and statutory guidelines. The bulk of permits are quickly approved through outstanding general or regional permits that grant authority for many low-impact activities. Evaluation of permits not covered by outstanding permits may require the Corps to conduct detailed, lengthy, and costly reviews. Statutory requirements may include preparing an environmental impact statement (EIS) as required under the National Environmental Protection Act of 1969.

Fees levied for commercial and private permits cost $100 and $10, respectively. There is no charge for government applicants. Total fee collections fall far short of covering the costs of administering the permitting program, particularly those for applications requiring detailed review or the preparation of an EIS. The Congressional Budget Office (CBO) estimates that reviewing commercial permit applications will cost the Corps about $25 million in 1997. Because commercial permit applications are likely to decrease if fees are increased, CBO estimates that the Corps' total cost of reviewing commercial applicants will also decrease. The Administration's fiscal year 1997 budget included a proposal to create a fee structure that would recover a smaller portion of the costs of administering the permitting program.

Proponents of higher fees would argue that parties seeking a permit, not the general taxpaying public, should bear the cost of permitting, and that because permit seekers are advancing a private interest, the benefits of which accrue to a private party, the costs should be borne by that party. Furthermore, society should not have to pay for a process that advances the interests of a comparative few.

Permit seekers might argue against increased fees from the standpoint of property rights. Why should property owners fund a process that may ultimately deny them the right to use their land as they choose? The goal of the Section 404 permit program is to advance the public interest by protecting wetlands. Because society benefits from wetlands protection, often at the perceived expense of property owners, society should pay. Furthermore, say permit seekers, the regulatory process that property owners must navigate is already onerous; adding yet another cost would further infringe on property rights.

ENT-07 REDUCE LOAN GUARANTEES MADE UNDER THE USDA'S EXPORT CREDIT PROGRAMS BY ELIMINATING GUARANTEES FOR LOANS TO HIGH-RISK BORROWERS

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	108	143	147	154	159	711
Outlays	108	143	147	154	159	711

The government guarantees short- and intermediate-term loans made by commercial banks to finance foreign purchases of U.S. agricultural commodities, especially grains and oil seeds, and other agricultural products. The Department of Agriculture (USDA) may use those guarantee programs to increase U.S. exports, compete against foreign agricultural exports, and assist some countries in meeting their food and fiber needs, but it cannot use them for foreign aid, foreign policy, or debt rescheduling. Credit terms, in addition to price, are a key element of competition in world markets.

U.S. law requires that borrowers be creditworthy, but some borrowers are riskier than others. If a foreign buyer misses a loan payment, the bank making the original loan submits a claim to the USDA. The USDA reimburses the bank, takes over the loan, and attempts collection. The U.S. government typically guarantees 98 percent of the principal of the loan and a portion of the interest.

This option would limit annual guarantees to $3 billion--about $800 million less than they would be under current law. The estimate of savings assumes that the reduction would derive from eliminating the guarantees for loans to high-risk borrowers, including but not limited to some countries in the Middle East, North Africa, Eastern Europe, and the republics of the former Soviet Union. That change would reduce outlays by $711 million over the 1998-2002 period, based on the subsidy value of the guarantees.

Proponents of reducing guarantees of credit to high-risk borrowers argue that the potential costs of those high-risk loans do not outweigh the benefits of the increase in U.S. exports, if any, resulting from them. Opponents of reducing the guarantees argue that the benefits do outweigh the potential costs. They maintain that the credit guarantees are vital in retaining the U.S. share of competitive world markets. (Some commodity groups believe that they would export less and receive lower prices for their products without the credits.) Opponents also argue that without the guarantees some countries could not meet their food and fiber requirements.

ENT-08 ELIMINATE THE EXPORT ENHANCEMENT PROGRAM

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	302	477	504	453	429	2,165
Outlays	302	477	504	453	429	2,165

The Department of Agriculture (USDA) subsidizes the export of agricultural commodities through the Export Enhancement Program (EEP). U.S. exporters participating in the EEP negotiate directly with buyers in a targeted country and then submit bids to the USDA for cash bonuses. The bids include the sale price, tentatively agreed to with the buyer, and the amount of the subsidy or bonus that has been requested by the exporter.

The signatories of the Uruguay Round Agreements Act of the General Agreement on Tariffs and Trade have pledged to reduce both the volume of subsidized exports of agricultural products and budgetary outlays on export subsidies for those products. (The legislation to carry out the Uruguay Round agreements also removes the requirement in U.S. law that the EEP be used only as a response to unfair trade practices, so that it can be used more generally for market promotion and expansion.) Moreover, the 1996 farm bill caps the funding available for the EEP in each year through 2002. Although the Uruguay Round agreements and the 1996 farm bill could restrict the size and cost of the EEP in the future, they will not eliminate it.

Since the program's inception in 1985, the USDA has awarded $7.2 billion in bonuses, mostly to assist wheat exports. The Congressional Budget Office believes that eliminating the EEP would result in lower exports and prices; thus, it expects that increases in outlays for other farm programs would offset some of the savings from eliminating this program. On balance, eliminating the EEP would save almost $2.2 billion during the 1998-2002 period.

On the one hand, the EEP may help to increase U.S. exports or maintain market share. On the other hand, it is not clear how effective the program has been as a counterweight to foreign subsidies, or how effective it will be under a broader mandate. Moreover, some critics argue that the EEP has depressed world commodity prices, thereby penalizing competitors who do not subsidize their exports.

ENT-09 ELIMINATE THE MARKET ACCESS PROGRAM

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	7	70	90	90	90	347
Outlays	7	70	90	90	90	347

The Market Access Program (MAP), formerly known as the Market Promotion Program, was authorized under the 1990 Food, Agriculture, Conservation, and Trade Act to assist U.S. exporters of agricultural products. The program has been used to counter the effects of unfair trading practices abroad, but the Uruguay Round Agreements Act of 1994 eliminated the requirement that it be used for such purposes. Payments are made to offset partially the costs of market building and product promotion undertaken by trade associations, commodity groups, and some profit-making firms. On the basis of current law, the Congressional Budget Office assumes that $90 million will be allocated annually for the program in the 1998-2002 period. Eliminating the MAP would reduce outlays by $347 million over the next five years.

The program has been used to promote a wide range of mostly high-value products, including fruit, tree nuts, vegetables, meat, poultry, eggs, seafood, and wine. According to a recent report by the General Accounting Office, the Department of Agriculture (USDA) allocated an average of about 35 percent of the funding for the program in the 1991-1994 period to participants promoting brand-name products. The 1996 farm bill prohibits direct MAP assistance for brand promotions to foreign companies for foreign-produced products, or to companies that are not recognized as small business concerns under the Small Business Act, except for cooperatives and nonprofit trade associations.

Some critics of the program argue that participants should bear the full cost of foreign promotions because they benefit directly from them. (It is uncertain how much return, in terms of market development, the program has generated or the extent to which it has replaced private expenditures with public funds.) Some observers note the possibility of duplication because the USDA provides marketing funds through the Foreign Market Development Cooperator Program of the Foreign Agricultural Service and other activities. Many people also object to spending the taxpayers' money on brand-name advertising.

Eliminating the MAP, however, could place U.S. exporters at a disadvantage in international markets, depending in part on the amount of support provided by other countries. Responding to concerns about duplication, some advocates of the MAP note that the program is different from other programs, in part because it has focused on foreign retailers and consumer promotions. People concerned about U.S. exports of high-value products consider the program a useful tool for developing markets and providing potential benefits for the economy overall.

ENT-10 INCREASE PRODUCER ASSESSMENTS TO PARTICIPANTS IN THE FEDERAL PROGRAM SUPPORTING THE PRICE OF TOBACCO

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	31	30	30	30	30	151
Outlays	31	30	30	30	30	151

The federal government aids producers of tobacco by supporting domestic prices above world market levels. Support comes from a combination of marketing quotas, price-supporting loans, and restrictions on imports. The support program benefits about 125,000 growers and 236,000 holders of marketing quotas. Some quota holders raise the crop themselves, and some rent their quota to growers.

Tobacco is a controversial crop because of the hazards of smoking, and federal support for producers has also been controversial. The program has been modified over time to reduce its costs to the taxpayer. In fact, it does nothing to encourage the use of tobacco. Rather, it raises the price of tobacco products to U.S. consumers, though the effect is quite small. The Department of Agriculture estimates that the program may increase the price of a pack of cigarettes by less than 2 cents. For producers, tobacco is an important source of income, particularly in some states. It was the sixth largest cash crop in the United States in 1995, when receipts to tobacco farmers totaled about $2.6 billion. Tobacco is produced in 21 states, and nearly two-thirds of the crop's acreage lies in North Carolina and Kentucky.

The cost of the tobacco price support program varies from year to year. The program can have substantial outlays in a given year, but if it functions as intended, it should have no net cost to the government over time. The reason is that growers and purchasers of tobacco contribute to "no-net-cost accounts" that are used to reimburse the government for costs (excluding administrative costs) of the price support program. In addition to those contributions, growers and purchasers are each assessed 0.5 percent of marketings, valued at the nonrecourse loan rate. Those assessments, started in 1991, were introduced to reduce federal program costs and the budget deficit.

This option would double the current assessment on domestic producers in the tobacco programs. Doing so would bring in receipts of about $151 million over the 1998-2002 period.

Deficit reduction is the main benefit of increasing the assessment. Proponents argue that the government's program gives producers of tobacco substantial benefits, although the support is not in the form of direct payments. They argue that program beneficiaries should not escape the deficit reduction efforts experienced by producers of other supported commodities just because the mechanism of support is indirect. Opponents would argue that since this program adds little to the federal deficit, producers should not be assessed to reduce the deficit.

ENT-11 CHARGE A USER FEE ON COMMODITY FUTURES AND OPTIONS CONTRACT TRANSACTIONS

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	57	61	65	69	74	326

The Commodity Futures Trading Commission (CFTC) administers the amended Commodity Exchange Act of 1936. The purpose of the commission is to allow markets to operate more efficiently by ensuring the integrity of futures markets and protecting participants against abusive and fraudulent trade practices. A fee on transactions overseen by the CFTC could cover the agency's costs of operation. Such a fee would be similar to one now imposed on securities exchanges to cover the cost of the Securities and Exchange Commission (SEC).

The Administration's budget for 1996 proposed a transaction fee, set at 10 cents per "round turn transaction." Such a fee, if imposed at the beginning of fiscal year 1998, could generate revenues of $326 million over the 1998-2002 period, which should be sufficient to cover the CFTC's operating expenses during that time. As proposed, the legislation to establish the fee would require the exchanges to remit it four times a year, based on trading volume during the previous quarter. The CFTC would collect the fee. Fee receipts could be classified as either revenues or offsetting receipts.

The main arguments in favor of the fee are based on the principle that users of government services should pay for those services. Participants in transactions that the CFTC regulates, rather than general taxpayers, are seen as the primary beneficiaries of the agency's operations and are therefore users who should pay a fee. Furthermore, the principle of charging such a fee has already been established by the SEC, as well as other federal financial regulators, such as the Office of Thrift Supervision and the Office of the Comptroller of the Currency. Considerations of equity and fairness suggest that not charging a comparable fee to support CFTC operations could give futures traders an unfair advantage over securities traders.

Those who argue against the fee say that such charges tend to encourage evasion by the people who would be subject to them. Users might try to avoid fees by limiting or shifting transactions to activities that are exempt from charges, which could conceivably cause a small fraction of market participants to desert U.S. for foreign exchanges. Major competing foreign exchanges, however, already charge user fees. Even with the proposed 10-cent transaction fee, U.S. futures exchanges may still enjoy a cost advantage over their major foreign competitors.

The Congressional Budget Office expects a user fee of 10 cents to cause only a negligible decrease in transactions because it is small in comparison with the fees already imposed by the exchanges themselves and the industry's self-regulatory organization, the National Futures Association. For example, a market user that is not a member of the Chicago Board of Trade pays a transaction fee of $1.24 on futures trades (a $1 exchange fee, a 10-cent clearing fee, and a 14-cent transaction fee imposed by the National Futures Association). Public participants in the futures markets also pay brokerage commissions typically ranging from $20 to $100 for each transaction. Thus, a 10-cent CFTC transaction fee is small compared with the total existing transaction costs of futures trading, and it would be unlikely to have a significantly adverse effect on the volume of trading on domestic futures exchanges.

ENT-12 ELIMINATE THE FLOOD INSURANCE SUBSIDY ON PRE-FIRM STRUCTURES

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	85	367	593	633	665	2,344

The National Flood Insurance Program (NFIP) offers insurance at heavily subsidized rates for buildings constructed before January 1, 1975, or before the completion of a participating community's Flood Insurance Rate Map (FIRM). Owners of post-FIRM construction pay actuarial rates for their insurance. Currently, about 18 percent of all flood insurance coverage is subsidized. The Congressional Budget Office estimates that eliminating the subsidy would yield about $2.3 billion in new receipts over the next five years.

The Federal Emergency Management Agency (FEMA), which administers the flood insurance program, estimates that 36 percent of policyholders are paying subsidized rates for some or all of their coverage. The program subsidizes only the first $35,000 of coverage for a single-family or two- to four-family dwelling, and the first $100,000 of a larger residential, nonresidential, or small business building; various levels of additional coverage are available at actuarially neutral rates. As a result of an April 1996 rate increase, coverage in the subsidized tier is priced at an estimated 38 percent of its actuarial value. The program also offers insurance for buildings' contents; again, policyholders in pre-FIRM buildings pay subsidized prices for a first tier of coverage.

Some subsidized NFIP policyholders purchased their coverage voluntarily, but others did so because of a statutory requirement prohibiting federally insured mortgage lenders from making loans on uninsured properties in "special flood hazard" areas. Despite the subsidies and mandatory purchase requirement, participation remains low. The report of the Interagency Floodplain Management Review Committee estimated that only 20 percent of structures in the nine states of the 1993 Midwest floodplain carried insurance, reflecting both low rates of purchase for properties not subject to the mandatory requirement (which include an estimated one-half of owner-occupied homes) and the apparent unwillingness or inability of many lenders to enforce the mandatory requirement. The Congress included measures to increase compliance with the mandatory requirement and otherwise boost NFIP participation in the National Flood Insurance Reform Act of 1994. Those provisions can be expected to reduce the percentage of current policyholders who would drop their coverage if the subsidies were eliminated, but the Congressional Budget Office estimates that a significant percentage would do so nonetheless.

Proponents of eliminating the subsidy argue that actuarially correct prices would make all property owners in flood-prone areas pay their fair share for insurance protection, and would give them economic incentives to relocate or take preventive measures.

One counterargument asserts that the subsidy should be maintained as part of an effort to increase the low rates of participation by property owners who are not subject to the mandatory purchase requirement. A second argument is that people who built or purchased property before FIRM documented the extent of the flood hazards should not face the same costs as those who made decisions after such information became available. Defenders of the current rates also question the accuracy of FEMA's actuarial tables. Although the current prices cover only 38 percent of estimated average costs over the long run, based on FEMA's mapping exercises, they are roughly equal to average losses incurred in the program to date. Finally, defenders argue that some of the projected benefit to the Treasury will be offset by increased spending by FEMA and the Small Business Administration on disaster grants and loans to people who drop or fail to purchase insurance coverage at the higher rates.

ENT-13 EXTEND AND BROADEN THE FCC'S AUTHORITY TO USE AUCTIONS TO ASSIGN LICENSES TO USE THE RADIO SPECTRUM

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	0	900	1,600	1,700	1,800	6,000

The Omnibus Budget Reconciliation Act of 1993 granted the Federal Communications Commission (FCC) authority to auction new licenses to use the radio spectrum. The authority, however, was limited to a five-year period ending on September 30, 1998, and did not apply to many classes of new licenses. The law excluded licenses issued to profit-making businesses that did not charge a subscription fee for telecommunications services. Exemptions included licenses allowing the holders to use the spectrum for such private networks as intracorporate wireless communications systems and permits for intermediary links in the delivery of communications service, such as frequencies used for microwave relays by long-distance telephone companies.

Extending the FCC's authority to auction licenses beyond 1998 and broadening the commission's auction authority to include any license sought by a private business, except nonsubscription terrestrial broadcasting licenses, would increase receipts by $6 billion from 1998 through 2002. Under this option, however, the commission would continue to award licenses to private businesses by comparative hearing when there were not mutually exclusive applications for a band of frequencies. The FCC has conducted 12 successful sales raising almost $23 billion since it was granted the authority to auction licenses. Just how much this option would add to current-law receipts, however, is uncertain. Both telecommunications markets and technologies are changing rapidly and at times unpredictably. The market for licenses used for a variety of private purposes is untested. Moreover, the technical attributes and regulatory limitations carried by the licenses will not be known until the commission allocates frequencies for specific uses. The commission's future actions will have a significant effect on the value of those licenses.

The case for extending the FCC's authority to auction the spectrum and to sell other valuable rights under its regulatory umbrella begins with recognition that the commission has successfully used the auction authority granted to it by current law. The process has gone smoothly, the public is receiving a share of the economic value of the airwaves, and licenses are being awarded promptly to the parties that value them most. Critics of the initial auction statute predicted a very different outcome.

Advocates of broadening the Federal Communications Commission's auction authority argue that current law draws a false distinction in treating the frequencies used to produce one private good or service in another way than those used to produce a different private good or service. From that point of view, the radio spectrum is a scarce resource. The cost to society of using frequencies in one way translates as benefits that might have been gained by using them in another way. That cost is not changed because a private network or intermediary use is once removed from the ultimate consumer of a good or service.

The case against the option emphasizes a go-slow approach. Early auctions have been successful. Critics might argue that broadening the law to include private networks and intermediary links will increase the cost to businesses seeking to innovate in those areas, thus discouraging the development of new telecommunications technologies and applications. Additionally, some people are concerned that if the United States auctions satellite slots and the associated spectrum, other countries will follow suit, compounding the increased costs to business.

The option considered is only one that would increase receipts collected by the FCC above the level anticipated under current law. Proposals that would direct additional spectrum to be cleared of current users and made available for auction would increase estimated receipts. Alternatively, the Congress could impose an annual fee on the holders of licenses who did not obtain them at auction, auction all of those licenses not originally assigned by auction at the time of their renewal, or allow license holders to pay for the right to use their spectrum assignments more flexibly.

ENT-14 AUCTION A PORTION OF THE TELEVISION SPECTRUM

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Upfront Auction						
Addition to Current-Law Receipts	2,500	7,500	2,500	0	0	12,500
Accelerated Return Plan						
Addition to Current-Law Receipts	0	0	0	0	9,700	9,700
"60-69" Plan						
Addition to Current-Law Receipts	300	1,100	400	0	0	1,800

The impending transition to advanced television will allow more efficient use of the radio spectrum and could generate additional receipts between 1998 and 2002. Under one option that would auction new slots for television broadcasting--the "upfront auction" or "second-channel auction"--receipts could increase by $12.5 billion between 1998 and 2000. Another option, an "accelerated return plan," would speed up the Federal Communications Commission's (FCC's) current advanced television transition plan and could increase receipts by $9.7 billion in 2002. A third option that would auction the unused portions of spectrum in channels 60 to 69 could raise $1.86 billion by 2000. Those options are illustrative and do not correspond directly to any current legislative proposals. The Congressional Budget Office's scoring of actual legislation would depend on language specifying when licenses would be available, the rights of new licensees versus those of current holders, restrictions on the types of services licensees would provide, and the amount of additional spectrum to be licensed by auction.

The radio "spectrum" does not exist as a physical object; rather, it is a conceptual tool used to organize and map a set of physical phenomena. Electric and magnetic fields produce waves that move through space at different frequencies (defined as the number of times that a wave's peak passes a fixed point in a specific period of time), and the set of all possible frequencies is called the electromagnetic spectrum. The subset of frequencies from 3,000 hertz (cycles per second) to 300 billion hertz--or 3 kilohertz to 300 gigahertz--is known as the radio spectrum.

Currently, just over 400 megahertz (MHz) of the radio spectrum in several frequency blocks between 54 MHz and 806 MHz is allocated to television broadcasting. Adopting digital technology will decrease interference problems and allow those frequency bands to accommodate twice as many 6 MHz slots--the amount of spectrum now granted a single analog television channel--for television broadcasting. Using digital television technology, each of those slots could be subdivided into four to six channels of the current quality, or used as a block to provide a single channel of improved quality television--so-called high-definition television. In order to watch digital television, however, viewers will need to replace their current TV sets or acquire converter devices similar to those now used by direct broadcast satellite subscribers.

The FCC is considering a plan to provide each holder of a broadcast license with an additional 6 MHz slot, a second channel, without charge. During a transition period of approximately 15 years, broadcasters would have the use of their old analog slot and the new

digital slot, allowing them to transmit both an analog and a digital signal and allowing viewers time to adopt the new technology. At the end of the transition, broadcasters would stop transmitting the analog signal and would return that spectrum to the FCC for allocation to other uses. Ultimately, the new digital channels could be "repacked" and accommodated within about 60 percent of the spectrum that is now allocated to television broadcasting in order to free up large contiguous blocks of spectrum for other uses. According to the FCC, the plan would make 138 MHz of spectrum available nationwide for auction after the transition.

Several proposals and variations of proposals that would either modify or significantly change the FCC's preliminary plan have received public attention. One, the upfront auction, would create a number of new digital slots equal to the number of analog channels. As early as 1997, the new digital slots would be auctioned to the highest bidders, who would be required to offer a minimum amount of digital broadcast service but would otherwise be free to put any excess spectrum to whatever use was most profitable and would not interfere with the rights of other license holders. Analog broadcast licensees could continue to broadcast and would be permitted to buy a digital slot without selling their analog channel. To that end, legislation would have to specify relief from current limits on station ownership. Current licensees could also convert their analog license to a digital license after a period of time and notification to their service area.

Alternatively, the accelerated return plan considered here proposes to speed up the Federal Communications Commission's plan to auction the returned analog spectrum. The key departure from the FCC plan as described above is that the transition period would not extend beyond 2005, and the rights to use the new spectrum would be auctioned in 2002--three years before the winning bidders could use it.

A third option would auction overlay licenses giving winning bidders rights to unused portions of the 60 MHz of spectrum between channels 60 and 69. Those channels are lightly used now, with only 97 analog TV stations nationwide, and the FCC plan could add as few as 35 digital stations. Consequently, some portions of the TV spectrum could be reallocated early in the transition process envisioned in the FCC plan. The version of the 60-69 plan considered here would otherwise follow that process and would require licensees to avoid interfering with television stations during the transition period.

Supporters of the options argue not only that each would raise federal receipts, but also--and perhaps more important--that they would increase the productivity of spectrum use by applying the discipline of market forces to the TV frequencies sooner than under the FCC plan. Each of the three options would do so in different ways, however, with different combinations of advantages and disadvantages.

The upfront auction, for example, would allow the market to determine who gets the digital channels, what they are used for (subject to the minimum requirement for TV broadcasting), and how long analog TV continues. It would not, however, facilitate repacking to clear large blocks of spectrum for new uses. The accelerated return plan would clear large spectrum blocks, just as the FCC plan would; because of its shorter transition period, the cleared frequencies would be available for valuable new services sooner, but more viewers would incur costs to replace or adapt their analog TV sets. To avoid imposing those additional costs, the 60-69 plan would settle for putting unused frequencies in the upper TV channels to new uses quickly and defer clearing the rest of the spectrum until the end of the longer transition period envisioned in the FCC plan.

Opponents of the upfront auction argue that it would be unfair to current broadcasters, especially those who bought stations in recent years under the expectation that the FCC would carry out its proposal to loan each broadcaster a second channel for digital operations. More generally, opponents of all three options argue that only the FCC plan allows enough time and spectrum for set manufacturers, providers of TV services, and viewers to make a smooth transition from analog to digital broadcasting.

ENT-15 INCREASE COPYRIGHT REGISTRATION FEES

	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	11	12	12	13	13	61

The government grants copyright protection to "original works of authorship" such as literary, dramatic, musical, and artistic works. The Copyright Office, part of the Library of Congress, charges a fee to register a copyright, but those fees do not cover the direct cost of administering copyright registration and related activities. Raising registration fees to recover the direct cost of those activities would reduce outlays or increase receipts by $11 million in 1998 and by $61 million over the 1998-2002 period. Increasing the copyright fee would impose an additional mandated cost, equal to the fee increase, on the private sector. The costs would not exceed the threshold for private-sector mandates.

Copyright owners have the exclusive right to reproduce, distribute, perform, or display a protected work and to develop derivative works based on the original. Copyright owners enjoy those rights even if they do not register their copyrights. Registration confers two additional benefits to copyright owners. First, courts treat the certificate of registration as prima facie evidence of a valid copyright. Second, registration allows copyright owners to receive statutorily defined damages and attorneys' fees if a court finds that the copyright has been infringed. Many owners feel that the benefits are worth the $20 registration fee; in recent years, the Copyright Office has processed more than 600,000 registrations a year.

Copyright registration is socially beneficial for the following reasons: first, it helps to clarify the owner's property rights and encourage creative activities. Second, in most cases applications for copyright registration must include copies of the copyrighted work. Those copies are made available to the Library of Congress for its collections. In recent years, the library has received books and other materials worth between $13 million and $20 million through the copyright deposit requirement. Finally, copyright registrations are used to compile a publicly available database of published and unpublished materials.

Copyright registration fees generated about $15 million in offsetting collections in fiscal year 1995. That represents about two-thirds of the direct cost of registration and related processing. Copyright fees were last increased in 1991, when the Congress raised the price from $10 to $20. The Congress also gave the Copyright Office the authority to raise its fees every five years, but limited increases to reflect the change in the consumer price index. The Copyright Office chose not to raise fees in 1995. During 1996, the Congress considered several proposals that would require copyright fees to recover the full cost of administering the registration process.

The argument for raising copyright fees is the same one as that for most user fees. When a government service benefits a specific group--in this case copyright owners--the cost of providing that service should be borne by that group. In the first half of this century, registration fees covered the cost of administering the registration process. After 1948, however, fees were not increased sufficiently to cover the growing cost of copyright registrations. This proposal would return the costs currently borne by all taxpayers to those who register their copyrights.

The main argument against raising fees is the possibility that doing so will deter some from registering their copyrighted material. In addition to the obvious effect on the revenues expected from a fee increase, such behavior would reduce the effectiveness of the Copyright Office in performing its other missions. The registration process is a relatively efficient way of compiling information for the public database and of enforcing the mandatory deposit requirement for published materials. If registration activity declines, the

Copyright Office may be forced to rely on other, more costly means of obtaining materials on behalf of the Library of Congress. Conceivably, increased reliance on those measures could cost more than the increase in revenues generated by the higher fees.

In order to recover the direct cost of the copyright registration process, fees must be increased to about $35 or $40, almost double the current fee. When the Congress doubled registration fees in 1991, registration activity fell by up to 10 percent. Another doubling of fees could have a comparable effect. The effect on registration activity could be reduced, however, by using a fee structure that minimizes the additional registration costs for individuals and small businesses.

ENT-16 IMPOSE USER FEES ON THE INLAND WATERWAY SYSTEM

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	439	590	613	633	653	2,928

The Congressional Budget Office estimates that the Congress annually appropriates about $650 million for the nation's system of inland waterways. Of that total, about $475 million is for operation and maintenance (O&M) and about $175 million is for construction. Current law allows up to 50 percent of inland waterway construction to be funded by revenues from the inland waterway fuel tax, a levy on the fuel consumed by barges using most segments of the inland waterway system. All O&M expenditures are paid by general tax revenues.

Imposing user fees high enough to recover fully both O&M and construction outlays for inland waterways would reduce the federal deficit by $439 million in 1998 and $2.9 billion during the 1998-2002 period. The receipts could be considered tax revenues, offsetting receipts, or offsetting collections, depending on the form of the implementing legislation. Receipts could be increased by raising fuel taxes, imposing charges for lockage, or imposing fees based on the weight of shipments and distance traveled. These estimates do not take into account any resulting reductions in income tax revenues.

The advantage of this option is the beneficial effect of user fees on efficiency. Reducing subsidies to water transportation should improve resource allocation by inducing shippers to choose the most efficient transportation route, rather than the most heavily subsidized one. Moreover, user fees would encourage more efficient use of existing waterways, reducing the need for new construction to alleviate congestion. Finally, user fees send market signals that identify the additional projects likely to provide the greatest net benefits to society.

The effects of user fees on efficiency would depend in large measure on whether the fees were set at the same rate for all waterways or according to the cost of each segment. Since costs vary dramatically among the segments, systemwide fees would offer weaker incentives for cost-effective spending because they would cause users of low-cost segments to subsidize users of high-cost segments. Fees based on costs of each segment, by contrast, could cause users to abandon high-cost segments of the waterways.

One argument in favor of federal subsidies is that they may promote regional economic development. Assessing user fees would limit that promotional tool. Reducing inland waterway subsidies would also lower the income of barge operators and grain producers in some regions, but those losses would be small in the context of overall regional economies.

ENT-17 ESTABLISH CHARGES FOR AIRPORT TAKEOFF AND LANDING SLOTS

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	500	500	500	500	500	2,500

The Federal Aviation Administration (FAA) has established capacity controls at four airports: Kennedy International and La Guardia in New York, O'Hare International in Chicago, and Washington National in the District of Columbia. This proposal would charge annual fees for takeoff and landing rights at those airports.

Takeoff and landing slots were instituted in 1968 to control capacity and were allocated without charge by the FAA. A total of about 3,500 air carrier slots exist, and there are an additional 1,400 commuter and general aviation slots at the four FAA-controlled airports. Airlines are allowed to buy and sell slots among themselves with the understanding that the FAA retains ultimate control and can withdraw the slots or otherwise change the rules for their use at any time. The slots have value because the demand for flights at times exceeds the capacity of the airports and the air traffic control system.

Estimating the revenue from slot charges is difficult. Airlines generally have not reported the prices they have paid for slots, and even when the value of a transaction is available, the slot value is unclear because slot sales often include other items of value, such as gates. In addition, slot values vary by airport, time of day, season, and other factors. Because the FAA reserves the right to withdraw and add slots and change the rules affecting their use, airlines that buy slots from other carriers must factor in uncertainty when deciding how much a slot is worth. The amount of revenue that could be obtained from annual charges would depend on similar factors, including the length of the lease. For those reasons, the Congressional Budget Office's estimates are somewhat equivocal. Revenues are estimated to be about $500 million annually and $2.5 billion over the 1998-2002 period. But they could be higher or lower depending on the structure of the leasing arrangements--such as length, whether slots could be subleased, and usage requirements--as well as market conditions affecting the airline industry.

The main argument in favor of establishing charges for slots is that since the slots reflect the right to use scarce public airspace, airports, and air traffic control capacity, private firms and individuals should not receive all the benefits that result from that scarcity. Instead, they should share it with the public owners of the rights. Further, the charges would serve as incentives to put those scarce resources to their best use.

The main argument against this proposal is that the scarcity of slots at the four airports arises principally from a lack of land and runway space; the fees are not intended to provide increased capacity. Further, if the current prices paid by airlines in the private sale of slots already accurately reflect their value, this proposal might not produce a better allocation of those scarce resources; the result would be only a redistribution of the benefits from their use between the private and public sectors.

ENT-18 ESTABLISH USER FEES FOR AIR TRAFFIC CONTROL SERVICES

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	790	1,627	1,675	1,726	1,777	7,595

The Federal Aviation Administration (FAA) manages the air traffic control (ATC) system, which serves commercial air carriers, military planes, and such smaller users as air taxis and private planes. Services provided include air traffic control towers that assist planes in takeoffs and landings, air route traffic control centers that guide planes through the nation's airspace, and flight service stations that assist smaller users. The FAA employs more than 17,000 air traffic controllers as well as sophisticated software to perform those tasks. The total cost of operating, maintaining, and upgrading the ATC system was about $6.5 billion in 1995.

About half of the operating cost of ATC is financed through annual appropriations from the general fund. Appropriations from the Airport and Airway Trust Fund pay for the other half of ATC operations and for facilities and equipment, research, engineering and development, and such non-ATC activities as airport improvement. The trust fund has been financed by excise taxes on airline passenger tickets, international departures, cargo, and fuel used by general aviation. Those taxes lapsed on January 1, 1996, but were reinstated for the period from August 26, 1996 to December 31, 1996. Whether or not they are reinstated, they do not affect this option because the receipts from this option would cover the portion of ATC costs borne by the general fund. The receipts could be considered tax revenues, offsetting receipts, or offsetting collections, depending on the form of the implementing legislation. These estimates do not take into account any resulting reductions in income tax revenues.

Over the past two years, several proposals have been advanced for reorganizing the FAA and spinning off its air traffic control functions to a private or quasi-public corporation. Such an entity would have to charge users for its services. If air traffic control remains within the FAA, the agency could impose user fees to cover the portion of ATC costs paid by the general fund.

Users could be charged according to the number of facilities they used on a flight and the marginal costs of their use at each facility. If users paid the marginal costs that the ATC system incurs on their behalf, the deficit would be reduced by about $790 million in 1998 and $7.6 billion over the 1998-2002 period, assuming that the new charges would be levied in the middle of fiscal year 1998. The savings in this option are based on estimates of marginal costs made in 1987, adjusted for inflation. The FAA is revising its allocation of costs.

Levying fees that reflect costs would encourage users to moderate their demands. Small aircraft operators might cut back on their consumption of ATC services, freeing controllers for other tasks and increasing the overall capacity of the system. An additional benefit of efficient fees is that, on the basis of user response, planners can judge how much new capacity is needed and where it should be located.

The main argument against this option is that it would raise the cost to users of ATC services. Such a move could weaken the financial condition of commercial air carriers. For general aviation, it also could cause a decline in the demand for small aircraft produced in the United States.

ENT-19 INCREASE USER FEES FOR FAA CERTIFICATES AND REGISTRATIONS

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	3	3	4	4	5	19

The Federal Aviation Administration (FAA) oversees a large regulatory program to ensure safe operation of aircraft within the United States. It oversees and regulates the registration of aircraft, licensing of pilots, issuance of medical certificates, and other similar activities. The FAA issues most licenses and certificates free of charge or at a price well below its cost to provide such regulatory approvals. For example, the current fee for registering aircraft is $5, but the cost to the FAA of providing the service is closer to $30. The FAA estimates the cost of issuing a pilot's certificate to be $10 to $15, but it does not charge for one. Imposing fees to cover the costs of the FAA's regulatory services could increase receipts by an estimated $19 million over the 1998-2002 period. If those fees were credited to the FAA's operations account as offsetting collections (as is the current general aviation registration fee), the agency's appropriation could be reduced by a corresponding amount without reducing its budget. Net savings could be somewhat smaller than those shown if the FAA needed additional resources to develop and administer fees.

The Drug Enforcement Assistance Act of 1988 authorizes the FAA to impose several registration fees as long as they do not exceed the agency's cost of providing that service. For general aviation, the act allows fees of up to $25 for aircraft registration and up to $12 for pilots' certificates (plus adjustments for inflation). Setting higher fees would require additional legislation. The FAA has initiated a rulemaking proceeding to consider raising those fees. Imposing other fees may require legislation; they could be authorized under legislation that the Congress is considering to overhaul the FAA.

Increasing regulatory fees might burden some aircraft owners and operators. That effect could be mitigated by scaling registration fees according to the size or value of the aircraft rather than the cost to the FAA. FAA fees based on the cost of service, however, would be comparable to automobile registration fees and operators' licenses and probably not out of line with their value.

ENT-20 REDUCE SUBSIDIES FOR LOANS TO STUDENTS AND PARENTS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
			Raise the Loan Origination Fee			
Outlays	200	305	320	335	355	1,515
			Charge All Student Borrowers Interest While They Are Attending School			
Outlays	1,740	2,625	2,730	2,865	3,005	12,965
			Charge All Student Borrowers Interest During the Six-Month Grace Period			
Outlays	305	455	470	495	520	2,245
			Raise Interest Rates on Student Loans After the Six-Month Grace Period			
Outlays	260	410	430	450	475	2,025
			Raise Interest Rates on Loans to Parents			
Outlays	135	155	175	180	190	835

Federal student loan programs afford postsecondary students and their parents the opportunity to borrow funds to attend school. The Higher Education Amendments of 1992 created a "subsidized" program for students defined as having financial need. It also created two "unsubsidized" programs, one for students from families with greater financial resources and another for parents of students. In the subsidized program, the federal government incurs interest costs on the loans while the students are in school and during a six-month grace period after they leave. In the unsubsidized programs, borrowers are responsible for the interest costs, although for students, payments can be made after they leave school. The government recoups part of the cost of those programs by collecting between 3 percent and 4 percent of the face value of each loan as an origination fee.

Borrowers benefit from both the subsidized and unsubsidized programs because the interest rate they are charged is tied to the cost of borrowing by the federal government. Although the government provides no budgeted subsidy in allowing borrowers access to funds at this low rate, the rate is considerably lower than that charged to most borrowers in the private credit market. In addition, the economic subsidy is larger in the subsidized program because interest is not charged until six months after the students leave school, whereas it begins to accrue immediately in the unsubsidized programs.

Federal costs could be reduced by increasing the loan origination fee charged to borrowers or by increasing the interest charged to borrowers on new loans. Interest charges on loans to students could be raised by increasing the interest rate charged after they leave school, or by requiring that loans to all students accrue interest while the students are in school or in the six-month grace period after they leave. Interest charges on loans to parents could also be raised.

Raise the Loan Origination Fee by 1 Percentage Point. Raising the origination fee on loans by 1 percentage point would reduce federal subsidies by a total of $1.5 billion during the next five years. It would, however, reduce the subsidies to borrowers, including

those with the fewest financial resources. An alternative, which would exempt many lower-income borrowers, would raise the fee only in the unsubsidized program. That version would, however, limit the savings to $645 million over the 1998-2002 period.

Charge All Student Borrowers Interest While They Are Attending School or During the Six-Month Grace Period. Another option would be to require that loans to all borrowers in the subsidized program accrue interest from the time the students borrow, as is now the case in the unsubsidized program. Doing so would eliminate the difference between subsidized and unsubsidized loans. Charging interest on all new loans while borrowers were in school, but deferring actual payments until after they left, would reduce federal outlays by $13.0 billion between 1998 and 2002.

A variation of this option that would reduce but not eliminate the subsidy given to lower-income borrowers would require all loans to begin accruing interest immediately after the students left school, thereby eliminating the current six-month grace period for subsidized borrowers. Under this option, borrowers would continue to be allowed a period of six months before the first payment was due. That approach would save about $2.2 billion over the 1998-2002 period.

These measures would not cause cash flow problems for students while they were in school because they would be allowed to defer interest payments during that period. Since the added costs would generally occur only after leaving school--when borrowers would be better able to afford them--most students would still be able to continue their education. By concentrating the reductions on the subsidized loan program, however, these options would have the greatest impact on lower-income borrowers.

Raise Interest Rates on Student Loans After the Six-Month Grace Period. Federal subsidies could also be reduced by raising the interest rate charged on loans to students after the six-month grace period. Currently, the rate is a variable one (tied to the cost of borrowing by the federal government) with a fixed maximum. Raising the interest rate and the interest rate cap on all new loans by 0.5 percentage points would reduce federal spending by $2.0 billion during the 1998-2002 period.

An advantage of this option is that it would raise the cost of the program to borrowers after they left school, when they could better afford it. It would also lower federal costs significantly and continue to provide economic subsidies to borrowers in the subsidized program. The larger payments that would result from this change might, however, cause some students (especially needy students) to limit their choices to lower-priced institutions or possibly not to attend school. (Reflecting the available evidence, however, these estimates assume that all borrowers would continue to attend postsecondary schools and would continue to borrow the same amounts).

As with raising the loan origination fee, this option could be applied only to borrowers in the unsubsidized loan program. Doing so would generally limit the effect of the change to students from families with greater financial resources and to parents, but it would also lower the savings to $805 million between 1998 and 2002.

Raise Interest Rates on Loans to Parents by 1 Percentage Point. Federal outlays could be reduced by raising the interest rate and the interest cap on all new loans to parents by 1 percentage point. This option would reduce federal outlays by $835 million between 1998 and 2002 and continue to provide economic subsidies for many parents. Again, the larger payments that would result from this change might cause some students (particularly those from lower-income families) to limit their choices of schools or to forgo further education entirely.

ENT-21 RAISE THE COST OF THE STUDENT LOAN PROGRAM TO LENDERS, GUARANTY AGENCIES, AND SCHOOLS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Raise the Lender Origination Fee						
Outlays	55	75	80	85	90	425
Lower the Default Reimbursement Rates						
Outlays	25	40	45	45	50	205
Eliminate the Fee Paid to Loan Originators						
Outlays	30	50	50	55	55	240

The Higher Education Amendments of 1992 created two programs providing loans for students to attend postsecondary schools: the Federal Family Education Loan Program (FFELP) and the Federal Direct Loan Program. Under FFELP, banks provide the capital for the loans. State and private nonprofit guaranty agencies insure lenders against losses that arise if students default on their loans. In turn, those agencies are reinsured by the federal government. In the direct loan program, the federal government provides the loans directly to students through their schools.

The government recoups part of the cost of FFELP by collecting 0.5 percent of the face value of each loan from lenders as an origination fee. In addition, the government recoups part of the cost of defaults from guaranty agencies. Until their default rates exceed 5 percent, guaranty agencies are reimbursed for 98 percent of the value of their defaulted loans. After that point, an agency is reimbursed for only 88 percent of the value of defaulted loans for the remainder of the fiscal year. If the claims exceed 9 percent, the reimbursement rate falls to 78 percent.

Raise the Lender Origination Fee. Raising the lender origination fee from 0.5 percent to 1 percent would reduce the federal costs of FFELP by a total of $425 million between 1998 and 2002. The rise in the origination fee might, however, reduce the number of lenders willing to participate in the program if some of them found that doing so was no longer profitable. Such a change might require that students spend more time finding a lender.

Lower the Default Reimbursement Rates. Lowering the default reimbursement rates to guaranty agencies by 3 percentage points (from 98 percent to 95 percent, for example) would reduce federal outlays for FFELP by $205 million over the next five years. Doing so might encourage guaranty agencies to be more diligent in ensuring that loans do not enter default. It would, however, increase the cost of the program to some agencies, which often have no choice in insuring loans that are at high risk of default.

Eliminate the Fee Paid to Loan Originators. Postsecondary schools that participate in the direct loan program receive a $10 fee for each borrower to help defray the cost of administering the program. In many cases, alternate originators, not schools, originate the loans and are paid a fee. Federal outlays could be reduced by an estimated $240 million over the 1998-2002 period if this fee was eliminated. Schools voluntarily participate in the direct loan program, and eliminating the payment would probably not cause many of them to return to FFELP. Faced with the loss of revenue, however, some schools might increase their tuition or reduce their services, having an unintended negative effect on students.

ENT-22 REDUCE STUDENT LOAN SPENDING BY INCLUDING HOME EQUITY IN THE DETERMINATION OF FINANCIAL NEED AND MODIFYING THE SIMPLIFIED NEEDS TEST

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Outlays	80	115	115	115	120	545

The Higher Education Amendments of 1992 eliminated house and farm assets from consideration in determining a family's ability to pay for postsecondary education, thereby making it easier for many students to obtain subsidized student loans. The legislation specifies formulas for calculating a family's need for subsidized loans. The amount a family is expected to contribute is determined by what is essentially a progressive tax formula. In effect, need analysis "taxes" family incomes and assets above amounts assumed to be required for a basic standard of living. The definition of assets excludes house and farm equity for all families, and all assets for applicants whose income is below $50,000.

Under this option, house and farm equity would be included in the calculation of a family's need for financial aid for postsecondary education. In addition, the income threshold under which most families are not asked to report their assets would be lowered to its previous level of $15,000. House and farm equity would be "taxed" at rates up to about 5.6 percent after a deduction for allowable assets.

Outlays could be reduced by about $545 million during the 1998-2002 period by including house and farm equity and modifying the simplified needs test. Associated savings could also be achieved in the Pell Grant program, a discretionary program that provides grants to low-income students. Outlays in that program could be reduced from the 1997 funding level adjusted for inflation by about $30 million in 1997.

Not counting home equity gives families who own a house an advantage over those who do not. There is concern, however, that because increases in incomes have not always kept pace with increases in housing prices, some families might have difficulty repaying their mortgage if they borrow against home equity to finance their children's education. In addition, having to value their home and other assets would complicate the application process for many families.

ENT-23 INCREASE USER FEES ON PRODUCTS REGULATED BY THE FDA

	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Receipts	145	149	154	158	163	769

Under the Prescription Drug User Fee Act of 1992, the Food and Drug Administration (FDA) is authorized to collect fees from pharmaceutical manufacturers to help cover the cost of reviewing new drug applications. Those fees are scheduled to expire at the end of fiscal year 1997. Reauthorizing those fees at current levels adjusted for inflation and establishing user fees for medical devices and other products regulated by the FDA could increase revenues by $145 million in 1998 and $769 million through 2002. The Administration's budget request proposes to increase the user fees collected by the FDA to $244 million in fiscal year 1998. That would constitute an increase of approximately $90 million above the levels proposed here.

The FDA's regulatory activities benefit both consumers and industry. The primary function of the agency is to ensure public safety by monitoring the quality of pharmaceutical products, medical devices, and food. Firms benefit from the public confidence that results from the FDA's quality standards. Ensuring a high level of product quality is essential to the success of those industries. Proponents of establishing new user fees argue that since firms benefit from those regulatory services, they should bear a share of the costs.

The Prescription Drug User Fee Act of 1992 established application fees and set a projected revenue schedule. The FDA charges a fee of $205,000 for each new drug application. Each supplemental application costs $102,500. In addition, pharmaceutical firms that have had a new drug application pending with the FDA at any time since September 1992 must pay an annual fee of $115,700 per manufacturing establishment and $13,200 per product on the market. In 1997, those fees are expected to raise $88 million, covering about 24 percent of the FDA's expenditures on regulating prescription drugs. Reauthorization of the Prescription Drug User Fee Act of 1992, assuming fees were set at 1997 levels adjusted for inflation, would produce $91 million in revenues in 1998 and $481 million between 1998 and 2002. If, in addition to reauthorization, those fees were increased by 40 percent above 1997 levels (after adjusting for inflation), they would produce an additional $36 million in revenues in 1998 and $192 million between 1998 and 2002.

The Federal Food, Drug, and Cosmetic Act requires that firms register all new medical devices before they are marketed and obtain FDA approval for certain types of devices (class III). Currently, manufacturers of medical devices do not pay fees to the FDA. Legislation proposed in 1994 included submission fees for the approval and registration of new medical devices that would have raised $24 million, but the Congress did not pass it. Application fees of $60,000 for each new medical device needing premarket approval would raise $3 million in 1998. Fees of $6,000 for new product registration (premarket notification) would raise $33 million in 1998. Combined, those fees would cover about 23 percent of the costs of regulating the medical device industry. If the new fees were used to increase FDA expenditures, they would not reduce the deficit. Industry would be likely to agree to new application fees and fee increases if the raises were accompanied by promises to speed up the approval process, but that could increase FDA expenditures.

Finally, the food industry could be charged user fees that would raise $19 million in 1998, covering about 8 percent of the FDA's costs of regulating the industry. The agency inspects domestic food processors, analyzes more than 17,000 domestic food samples a year, and monitors the quality of seafood. If the FDA charged domestic food processors employing more than 250 people and processing all foods except meat and poultry an annual fee of $10,000, it could raise $10 million. If the Food and Drug Administration also

charged each domestic establishment employing 100 to 249 people an annual fee of $5,000, it could raise another $9 million.

Charging user fees to all domestic food processors would be cumbersome. There are more than 15,000 domestic food processors who employ fewer than 100 people. Smaller establishments have a much lower sales volume and therefore should be charged a much lower annual fee. Collecting a low fee from so many establishments, however, might be counterproductive.

In general, people opposing FDA user fees might argue that the agency's current oversight activities are excessive. Rather than increasing user fees, the FDA could cut costs by scaling back its regulatory requirements.

ENT-24 REDUCE THE 50 PERCENT FLOOR ON THE FEDERAL SHARE OF FOSTER CARE AND ADOPTION ASSISTANCE PAYMENTS

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Foster Care and Adoption Assistance Outlays	90	120	140	150	160	660

The Foster Care and Adoption Assistance programs provide benefits and services to children who are in need.

The federal government and the states jointly pay for the Foster Care and Adoption Assistance programs. The federal share of the costs of the programs varies with a state's per capita income. High-income states pay for a larger share of benefits than do low-income states. By law, the federal share can be no less than 50 percent and no more than 83 percent. The 50 percent federal floor currently applies to 12 jurisdictions: Alaska, Connecticut, Delaware, the District of Columbia, Hawaii, Illinois, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, and New York.

Under this option, the 50 percent floor would be reduced to 45 percent, generating savings of about $90 million in 1998 and $660 million through 2002. The estimates assume, however, that states would partially offset their higher costs by reducing benefits.

Proponents of the change argue that high-income states that choose to be generous should bear a larger share of the cost. If the floor was reduced to 45 percent, federal contribution levels would be more directly related to the state's income, and seven of the 12 jurisdictions would still be paying less than the formula alone would require.

Opponents of the change stress that the higher incomes and benefit levels in the affected states partly reflect higher costs of living. If this proposal was adopted, the affected states would have to compensate for the lost federal grants by reducing Foster Care and Adoption Assistance benefits, lowering spending on other services, or raising taxes. If states chose to compensate by partially reducing benefits, as the estimates assume, beneficiaries of the program would be adversely affected.

ENT-25 REDUCE MATCHING RATES FOR ADMINISTRATIVE COSTS IN THE FOSTER CARE AND ADOPTION ASSISTANCE PROGRAMS

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
			Reduce Matching Rates to 50 Percent			
Budget Authority	95	105	110	120	130	560
Outlays	80	100	110	120	125	535
			Reduce Matching Rates to 45 Percent			
Budget Authority	270	290	310	330	350	1,550
Outlays	220	280	300	330	350	1,480

The federal government pays one-half of most administrative costs for the Foster Care and Adoption Assistance programs; state and local governments pay the remaining share. Higher matching rates have been set for some types of expenses as an inducement for local administrators to undertake more of some activities than they would if those expenses were matched at 50 percent. For example, training costs are matched at 75 percent.

Reducing the higher matching rates to 50 percent would decrease federal outlays by $80 million in 1998 and by $535 million over the 1998-2002 period. Considerably greater savings would be generated if all the matching rates for administrative costs were reduced to 45 percent, because an additional 5 percent of the total administrative expenses would be shifted to the states. Federal outlays would fall by $220 million in 1998 and by $1.5 billion over the 1998-2002 period.

Reducing the higher matching rates to 50 percent would be appropriate if the need to provide special incentives for activities such as training no longer exists. Reducing all matching rates to 45 percent would give states stronger incentives to reduce administrative inefficiencies because the states would be liable for a greater share of the associated cost.

States might respond to either option by reducing their administrative efforts, however, and might thereby raise program costs and offset some of the federal savings. Specifically, states might make less effort to eliminate waste and abuse in payments to providers. Conversely, this proposal might harm recipients by encouraging states to lower benefits or limit services provided under these programs in order to hold down total costs.

ENT-26 REDUCE FEDERAL EMPLOYEE RETIREMENT COSTS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
			Defer COLAs for Retirees			
Military Retirement	280	680	1,100	1,540	2,000	5,600
Civilian Retirement	120	280	420	530	620	1,970
			Limit Some COLAs Below Inflation			
Military Retirement	230	550	880	1,240	1,610	4,510
Civilian Retirement	160	370	600	830	1,080	3,040
			Pay Full COLAs on Benefits Below a Certain Level and 50 Percent on Benefits Above That Level			
Military Retirement	210	520	860	1,210	1,580	4,380
Civilian Retirement	270	640	1,030	1,430	1,850	5,220
			Modify the Pension Calculation			
Military Retirement	20	30	60	80	100	290
Civilian Retirement	10	50	100	150	210	520
			Restrict the Agency Match on Thrift Savings Plan Contributions to 50 Percent			
Civilian Retirement[a]	390	590	670	750	850	3,250
			Raise Employee Contributions			
Military Retirement[b]	10	70	110	140	180	510
Civilian Retirement[b]	690	1,630	1,900	1,940	1,990	8,150

a. Discretionary savings from the 1997 funding level adjusted for inflation.

b. Addition to current-law revenues.

Federal civilian and military retirement programs cover about 4.5 million active government employees. Federal pension payments to 4.2 million retirees and survivors totaled $68.6 billion in 1996. Practically speaking, there are three basic approaches to reducing the costs of federal retirement--namely, cutting benefits as they are earned by employees, cutting benefits as they are paid to retirees, or increasing employee contributions.

The Federal Employees' Retirement System (FERS) covers civilian employees hired since January 1984. FERS supplements Social Security, in which workers who are covered under FERS also participate. When the system was created, workers hired before 1984 had the option to join. Most civilian employees not in FERS are covered by the Civil Service Retirement System (CSRS). Employees who are covered under CSRS do not ordinarily participate in Social Security. Uniformed military personnel are covered by the Military Retirement System (MRS), which was last revised for personnel entering the service after July 31, 1986, and by Social Security.

The options described here for reducing the costs of federal retirement differ according to whom they would affect. The increase in contributions, for example, would affect current workers by requiring them to contribute more of their income toward future benefits. By contrast, the options limiting cost-of-living allowances (COLAs) would immediately affect current retirees. Under provisions of the Omnibus Budget Reconciliation Act of 1993 (OBRA-93) and subsequent revisions, COLA payments for civilian and military retirees were delayed for three months (until April 1996). The other options would affect both current employees and future retirees.

The five-year cash estimates for the cuts in benefits described here represent only a small portion of the long-run savings that would result from reducing federal retirement costs. One reason is that the options are phased in at different rates, so the first year's cash savings are relatively small. Even more important, the cash flows and costs are accounted for differently in different options. For example, the bulk of the cash savings from modifying the salary used to compute pensions shows up years or decades in the future, when current employees retire. By contrast, the option of raising employee contributions counts as an immediate savings. Given those differences, the relative size of savings over five years for each option may not be an accurate guide to the long-run advantage of each for reducing the budget. Moreover, the emphasis on five-year cash estimates makes options such as increasing the federal retirement age less attractive than they would be otherwise. Such an option, which was considered by the Bipartisan Commission on Entitlement and Tax Reform, can have a large payoff in the longer run but not over the next five years.

The main argument for cutting federal retirement costs is that benefits are more generous than those typically offered by firms in the private sector. Reducing selected federal retirement benefits and increasing pay would produce a mix of current and deferred compensation that was more in line with standards in the private sector. Even if federal retirement was reduced in the manner described below, many federal retirees would still receive benefits that exceed those typically afforded employees retiring from private firms. Depending on how they are designed, some of the cuts in benefits could also promote efforts to reduce employment without layoffs because some workers would leave before reductions took effect. That would be especially true if employees were offered cash as an added inducement to resign. Cuts in retirement, moreover, probably hurt retention and recruitment less than salary cuts. Employees are likely to be more responsive to a salary cut that lowers their current standard of living than to a cut in the rate at which retirement benefits are earned that lowers their future standard of living.

The main argument against cutting retirement benefits is that such an action hurts both retirees and the government's ability to recruit a quality workforce. Advocates for federal workers and retirees point out that pensions are part of the employment contract between the government and its employees; attempts to cut retirement benefits therefore constitute reneging on earned benefits. They also argue that, although certain provisions of retirement are generous, total compensation should be the basis of comparison between federal and private-sector employees. Annual surveys indicate that federal workers may be accepting salaries below private-sector rates for comparable jobs in exchange for better retirement benefits. In essence, those workers pay for their more generous retirement benefits by accepting lower wages during their working years. Moreover, as some observers maintain, cutting benefits that were promised to current annuitants may prompt forward-looking workers to demand higher pay now to offset the increased uncertainty of their deferred earnings.

One way to avoid some of the negative consequences of reductions in retirement benefits is to make such cuts apply only to new employees. Current employees could not argue that this prospective approach violates their labor contracts. The approach produces small savings in the short term but substantial savings in the future.

Options Offering Savings in the Near Term

Several of the options available for trimming federal retirement costs would produce savings in the near term. Those options involve cutting cost-of-living ad-

justments for retirees, changing formulas on which benefits are based, or increasing employee contributions.

Defer Cost-of-Living Adjustments

The CSRS and the prereform MRS (covering new recruits before August 1, 1986) provide full cost-of-living protection to all retirees, even those who retire before they are 62 years old. That kind of inflation protection is expensive when compared with what is available under the largest and most generous private pensions. Deferring COLAs until age 62 for all nondisabled employees who retired before that age would yield savings of $7.6 billion over five years. (Almost three-quarters of the estimated savings would derive from MRS because more than one-half of its annuitants are nondisabled retirees under 62, most of whom left the service in their 40s.) This COLA deferral would result in a loss of $8,600 over five years for a CSRS-covered annuitant retiring at 55 with an average annuity of $20,500 in 1998. The average military retiree under 62 years old would lose $11,600 over five years based on an average annuity of $19,600 in 1998.

If COLAs were deferred, the government's retirement costs would be moderated and more in line with the treatment of COLAs under FERS and the post-reform MRS. (Consistent with the MRS reforms, this option allows a catch-up adjustment at age 62 that reflects inflation after the date of retirement. Most retirees under FERS receive neither protection before age 62 nor a catch-up at 62.) Although the option would lower the compensation of affected workers after retirement, many retirees should be able to supplement their pensions by working--as most military retirees already do. Opponents note that this policy is especially hard on military retirees, who are generally forced to retire after 20 to 30 years of service. As an alternative to eliminating COLAs, retirees who have not reached the age of 62 could be granted COLAs equal to one-half of the inflation rate with no catch-up provision. That option would offer retirees under 62 some immediate insurance against inflation. The plan parallels changes that the Congress mandated in 1982 but subsequently repealed. It would result in savings of about $3.9 billion over five years.

Limit Some COLAs

On average, private pension plans offset only about 30 percent of the erosion of purchasing power caused by inflation. By contrast, CSRS and the prereform MRS provide 100 percent automatic protection from inflation. However, some of that protection was temporarily taken away by delayed effective dates under OBRA-93. The General Accounting Office calculated that COLA delays and reductions during the 10-year period from 1985 through 1994 effectively reduced COLAs to about 80 percent of inflation.

This option would limit COLAs to 1 percentage point below the rate of inflation for the old MRS and to one-half point below inflation for CSRS. (The smaller half-point limitation for CSRS would apply to a more comprehensive benefit that, unlike the defined benefits under FERS and MRS, substitutes for both Social Security and employer-sponsored benefits. Therefore, the smaller cut would produce a reduction comparable to the one-point limit for MRS enrollees.) Those changes would conform to the postretirement COLAs for employees covered by FERS and the revised MRS. This option, however, would hurt low-income retirees most. It would also renege on an understanding that workers in CSRS who passed up the chance to switch systems would retain their full protection against inflation. Savings would amount to $7.6 billion through 2002. (Savings from this option would decrease to $5.1 billion if it was coupled with the preceding one that would defer COLAs until age 62.) The average CSRS-covered retiree would lose $1,500 over five years, and the average military retiree would lose $4,100 over five years.

Reduce COLAs to Middle- and High-Income Retirees

Another alternative would tie the COLA reductions to beneficiaries' payment levels. The example discussed here would award the full COLA only on the first $665 of a retiree's monthly payment and a half COLA on the remainder. The $665 per month threshold is about equal to the projected 1998 poverty level for an elderly person and would be indexed to maintain its value over time. Similar proposals have been considered for Social Security.

This approach would save about $480 million in 1998 and $9.6 billion over the 1998-2002 period. The average CSRS-covered retiree would lose $2,400 over five years, and the average military retiree would lose $3,300. Because the full COLA would be paid only to beneficiaries with low annuities, this option would better focus COLAs on retirees who have the greatest need for protection from inflation. Retirees receiving FERS benefits already receive a reduced COLA, so this change would affect them less than those receiving CSRS benefits. Pension benefit levels are not always good indicators of total income, however, so the restricted COLAs would not always be focused on low-income cases. Furthermore, many people object to any changes in earned retirement benefits that might be construed as introducing a means test for benefits, even if the test is limited only to the COLA. They also point out that federal pensions are fully taxable under the federal individual income tax in the same proportion that they exceed the contributions that employees made during their working years.

Modify the Salary Used to Set Pensions

Under current law, CSRS and FERS provide initial benefits based on an average of the employee's three highest-salaried years. MRS also uses that three-year base for personnel hired after September 1980. However, personnel hired before that date will receive benefits calculated using salary at the date of retirement. If, instead, a four-year average was adopted for CSRS and FERS, as well as for military personal hired after September 1980, and a 12-month average was adopted for the remaining military personnel, initial pensions would be about 2 percent to 3 percent smaller for most new civilian retirees and about 1 percent to 2 percent smaller for military retirees. Total savings to the government through 2002 would be $810 million.

This option would align federal practice more closely with practice in the private sector, where five-year averages are common. In the long run, this option could encourage some employees to stay on another year in order to take full advantage, when calculating retirement benefits, of the higher salaries that may occur over time. That could help the government keep experienced people, but hinder efforts to reduce federal employment. In 1995, the Congress actively considered the 12-month final pay option for military personnel, but ultimately rejected that proposal. About 250,000 personnel would have been affected.

Restrict Matching Contributions

The Thrift Savings Plan (TSP) is a defined contribution plan similar to 401(k) plans that many private employers offer. Federal agencies automatically contribute 1 percent of individual earnings to the TSP on behalf of any worker covered by FERS. In addition, the employing agency matches voluntary employee deposits dollar for dollar for the first 3 percent of pay and 50 cents for each dollar for the next 2 percent of salary. The entire federal contribution for employees putting aside 5 percent amounts to a sum equal to 5 percent of pay. If the government limited its matching contributions to a uniform 50 percent rate against the first 5 percent of pay, the government's maximum contribution would fall to 3.5 percent of pay. Compared with current law, the discretionary savings from this proposal would total $3.3 billion over five years. (The estimates exclude savings realized by the Postal Service because it is now off-budget and reductions in its operating costs eventually benefit only mail users.) Assuming continuation of the automatic 1 percent match, this arrangement would remain superior to the coverage typically offered in the private sector.

Restricting the matching contributions would have several drawbacks. Middle- and upper-income employees rely on the government's matching contributions to maintain their standard of living during retirement because Social Security replaces a smaller fraction of their income than it does for lower-income employees. Part of the TSP's appeal derives from the fact that it provides individual accounts for each participant, the value of which cannot be cut by subsequent changes in law. The security and portability of the TSP were a major reason for the decision of many employees to switch to FERS, because the TSP compensated for an inferior defined benefit plan. Changing the TSP's provisions would be especially unfair to that group, whose decision to switch plans reasonably assumed that changes would not be made. Opponents of restricting the matching rate also argue that doing so would diminish employees' savings for retirement, and that problem would be intensified if the cut reduced participation.

Increase Employee Contributions for Federal Pensions

As an alternative to cutting benefits, the government could increase its revenues by raising civilian and new military employees' contributions. The strength of the federal retirement system lies in the indexed benefits that provide inflation protection that cannot be purchased in the private sector. Requiring employees to contribute to their retirement funds--an uncommon practice in the private sector--is one way of offsetting that extra cost while maintaining a high level of salary replacement.

On the downside, for most federal civilian employees and new entrants to military service, the option would be equivalent to a 2 percent pay cut without a drop in taxes. It would increase the relative importance of deferred compensation, which some critics argue costs the government more than the value employees place on it. In addition, it would threaten the government's ability to recruit new workers and to retain experienced personnel. Finally, the option would further distance the federal government from common private-sector compensation practices. According to recent survey data, only about 13 percent of private pension plans require additional employee contributions. But private-sector employees contribute 6.2 percent of their pay (up to $65,400 in 1997) for Social Security.

Increasing Contributions from Civilian Employees. For civilian employees, this option would increase both CSRS- and FERS-covered employees' contribution rates by 1 percentage point in January 1998 and by another point a year later. It would generate revenue of about $8.2 billion through 2002. Currently, workers covered by CSRS contribute 7 percent of their salary to their retirement fund, but they pay no Social Security taxes. The 0.8 percent contribution rate for FERS-covered employees, together with their 6.2 percent share of the Social Security tax, was set to equal the employee contribution in CSRS.

An alternative to this option would be to restrict the increased employee contributions to CSRS-covered workers. That alternative would raise $3.8 billion in revenue over five years. Currently, the employee's 7 percent contribution and the employing agency's matching 7 percent contribution cover just 56 percent of the cost of CSRS pension benefits as earned. The Office of Personnel Management estimates that full funding of CSRS pension benefits would require contributions totaling 25.14 percent of payroll. Over time, the government makes additional payments that cover most of the remaining unfunded benefits. Raising the CSRS contribution rate to 9 percent over two years would lessen this "shortfall." Alternatively, the CSRS shortfall could be funded through higher agency contributions, although that would not reduce the long-term cost to taxpayers. Higher agency contributions would confront managers with the true cost of labor and could improve program management and resource allocation.

There is no funding shortfall for FERS participants. Restricting the higher contributions to CSRS-covered employees, however, would lower their take-home pay in relation to similarly situated FERS-covered employees, which would penalize workers who chose to stay in CSRS in 1987 rather than join the new FERS. More CSRS-covered employees would have switched to FERS when they had the opportunity if they had known that their contribution rate would increase.

Increasing Contributions from Military Personnel. This option would also require people entering military service to contribute a portion of their basic pay toward their future retirement costs. Currently, military personnel do not contribute to their retirement, although they do pay Social Security. Entering service members would contribute 1 percent of their basic pay in January 1997, and that rate would rise by another percent a year later. Because military personnel who leave with less than 20 years' service time receive no pension, they would receive a refund of the full amount of their contributions with interest. Adopting this plan would save $10 million in 1998 and a total of $510 million through 2002. Because of future refunds, those amounts overstate the eventual savings by $320 million during the period. In 20 years, when the transition for this proposal was complete, annual savings would total nearly $790 million.

Military retirement benefits are significantly more generous than federal civilian retirement benefits. Requiring contributions by military personnel would be a step toward putting their system on an equal footing with its civilian counterpart. Proponents argue that equity is an important consideration--current and deferred compensation are important for recruiting and retaining civilian as well as military personnel--that has played a

role in other actions such as advancing COLAs for military retirees to the same dates as COLAs for civilian retirees. Further, advocates contend that requiring new personnel to contribute 2 percent of basic pay would have little impact on recruitment and retention. Reforms during the 1980s that cut military retirement benefits by 25 percent appear to have had only a negligible impact on meeting such goals, although their effect is difficult to assess because of other personnel policies that the military services have carried out in connection with the overall defense drawdown.

The military retirement system, however, is supposed to support a personnel system very different from those in civilian organizations. Although many military occupations at all levels closely resemble civilian jobs, the services assert a need for a "young and vigorous" force and thus support their retirement system that allows members to leave at still youthful ages after 20 years of service without imposing financial hardships. Further, the system encourages trained, skilled personnel who have 12 to 20 years of experience to remain in the service instead of seeking alternative employment. Opponents argue that the option would hurt retention by increasing the incentive for members to leave the military before they became eligible for retirement, especially because it offers an "exit bonus" in the form of the return of contributions. They contend that a direct pay cut, or a reduced pay raise in one year, could yield equal savings at lesser cost to retention. Critics of the option claim that offsetting its negative effects would require higher pay or larger reenlistment bonuses that could more than wipe out projected savings.

Options with Long-Term Impacts

The Congress has several additional options that could cut retirement spending in the long term but would not result in significant near-term cash savings. The Congress should evaluate those options, not only in terms of their savings but also in light of their effects on the ability of the government to recruit and retain a skilled workforce and the credibility of the federal government as a reliable employer. In presenting these options, the Congressional Budget Office does not mean to suggest that any of the retirement programs face a financial crisis. In contrast to Social Security, the ratio of beneficiaries to the revenue base in those programs does not surge. In fact, the demand placed on the general fund by civil service retirees is expected to decline in constant dollar terms after 2015, according to the Office of Personnel Management's projections.

Raise the Retirement Age

The federal system generally permits retirement earlier than does the private sector. Most civilian federal employees can retire with immediate unreduced benefits at age 55 with 30 years of service, at 60 with 20 years of service and at 62 with five years of service. The minimum retirement age gradually rises to 57 for FERS employees born after 1969. As life expectancies have increased, Social Security and other retirement plans have raised retirement ages.

This option would gradually raise the normal retirement age for receiving CSRS and FERS benefits from 55 to 57. Starting with employees who are currently 35 years old, the retirement age would increase by two months each year. Voluntarily retirement would still be allowed at age 55 with actuarially reduced benefits. For illustrative purposes, if the current retirement age were 57 instead of 55, about 15,000 employees each year would have to delay their retirement one to two years, thus saving about $600 million a year in 1998 dollars. The federal government could realize even greater savings if the retirement age was gradually increased to 60. Starting with employees under age 33, the retirement age for unreduced benefits would increase by four months each year until it reached 60.

The majority of federal employees would not be affected by this option. Recently, only 34 percent of the workforce voluntarily retired before age 60. Also, 47 percent of those retiring under normal retirement rules in 1996 were 62 or older. Nevertheless, raising the retirement age would still reduce federal retirement costs substantially. Most savings, however, would occur far beyond the five-year period identified in this option because it would be necessary to phase in such a reform over several years.

Raising the retirement age, however, disrupts the long-term financial planning of employees, and is especially unfair to those near retirement already. In addi-

tion, the option would lengthen the service requirements for those employees who tend to have the longest federal service. Further, any tinkering with the retirement system may increase employees' uncertainty about the future of the system and weaken their attraction to government service.

Reduce the Rate at Which Benefits Are Earned

The rates at which employees earn or accrue benefits determine the percentage of salary base--currently the three highest-paid years--that workers earn in pension benefits for each year of service. This option would reduce the accrual rates by 0.1 percentage point for each year of service after January 1, 2000. (If a worker valued retirement benefit accruals and wages equally, he or she would view the cut as similar to a reduction of $100 in pay for each $10,000 earned.) Thus, workers would see their replacement rate drop by 1 percentage point for each 10 years of service after 2000. For example, FERS employees who retired after 30 years of service would see the defined benefit portion of their pension fall by 10 percent--from 30 percent of final salary to 27 percent of salary.

Reducing the defined benefit portion of retirement lessens the extent to which retirement benefits bind the employee to federal service. Currently, workers who leave government service before normal retirement age effectively lose much of their expected pension wealth. This option would reduce that loss and thus probably lead to greater turnover among experienced and highly trained federal employees, who might find midcareer moves to the private sector more attractive.

Some analysts have also suggested that the Congress reduce the rate at which military personnel earn retirement benefits after 20 years of service. One common proposal is to reduce the rate at which such benefits are earned from 3.5 percent a year to 2 percent a year. Benefits would still accrue at 2 percent of active-duty pay for the first 20 years of service. That reduction in earned benefits would reduce pensions from 75 percent of active-duty pay after 30 years of service to just 60 percent of pay, a 20 percent reduction. That proposal would only cover new personnel.

That proposal, however, would greatly reduce the incentive to stay in the service past 20 years. In fact, the pension benefit formula was last reformed in 1986 with the express purpose of assisting retention beyond 20 years of service. Further, although 30-year retirees would still be receiving a pension that replaced 60 percent of active-duty pay, only 45 percent of regular compensation would be replaced. In addition to basic pay, regular military compensation includes housing and subsistence allowances.

Increase Reliance on the TSP

The Thrift Savings Plan has proven very popular with employees for several reasons. First, the benefits are portable, which allows mobility. Vested individuals who switch jobs suffer no loss of pension wealth. Second, the accounts are safe from political tampering. The Congress cannot reduce the benefits that employees have already earned. Third, individuals who are willing to assume greater risks have the potential to earn much higher returns than are available from investments in Treasury securities. For example, last year the return on the government bond fund was 7 percent, but the passively managed stock-indexed fund earned 23 percent. Although those high returns in the stock fund are atypical--the 1994 return was just over 1 percent--and significant losses can occur if the market collapses, employees who invest in the stock fund can expect higher returns over time, based on past experience.

The experience to date with the TSP suggests that a possible win-win situation exists--savings for the government and higher-valued retirement benefits for federal employees--if the government increases its reliance on the TSP. Because of the potential for higher returns on TSP investments and the plan's other positive attributes, the average employee might be better off if the government devoted more of its resources to TSP contributions and less to defined benefits. For example, employees might find a $90 contribution to the TSP more attractive than $100 in defined benefit promises.

Although long-term savings might be realized, the short-term effects would be much higher cash outlays. The government's contributions to the TSP show up in

the budget as cash outlays immediately, whereas the defined benefits that are earned by employees result in budget outlays only when they are paid out years later.

Increasing reliance on the TSP raises a number of additional issues. First, individuals bear the full investment risk in the Thrift Savings Plan, whereas they bear none under defined benefit plans. Second, TSP offers no disability benefits and cannot be easily modified to subsidize early retirement and encourage downsizing. Third, the government cannot easily use the TSP to bind employees to the federal sector.

ENT-27 END OR SCALE BACK TRADE ADJUSTMENT ASSISTANCE

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
			End Trade Adjustment Assistance			
Budget Authority	215	315	330	330	335	1,525
Outlays	155	300	330	330	335	1,450
			Eliminate Trade Adjustment Assistance Cash Benefits			
Budget Authority	115	220	235	235	235	1,040
Outlays	115	220	235	235	235	1,040

The Trade Adjustment Assistance (TAA) program offers income-replacement benefits, training, and related services to workers unemployed as a result of import competition. To obtain assistance, such workers must petition the Secretary of Labor for certification and then meet other eligibility requirements. Cash benefits are available to certified workers receiving training, but only after their unemployment insurance benefits are exhausted.

Ending the TAA program would reduce federal outlays by $155 million in 1998 and by $1.4 billion during the 1998-2002 period. Affected workers could apply for benefits under title III of the Job Training Partnership Act (JTPA), which authorizes a broad range of employment and training services for displaced workers regardless of the cause of their job loss. Because funding for title III is limited, however, TAA cash benefits alone could be eliminated, and the remaining TAA funds for training and related services could be shifted to title III. Savings under that option would total $1.0 billion during the 1998-2002 period.

The rationale for these options is to secure under federal programs more equivalent treatment of workers who are permanently displaced as a result of changing economic conditions. Since title III of JTPA provides cash benefits only under limited circumstances, workers who lose jobs because of foreign competition are now treated more generously than workers who are displaced for other reasons.

Eliminating TAA cash benefits would, however, cause economic hardship for some of the long-term unemployed who would have received them. In addition, TAA now compensates some of the workers adversely affected by changes in trade policy. Some people argue, therefore, that eliminating TAA benefits could lessen political support for free trade, which economists generally view as beneficial to the overall economy.

ENT-28 REDUCE THE $20 EXCLUSION FROM INCOME IN SUPPLEMENTAL SECURITY INCOME

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	110	150	165	145	160	730
Outlays	110	150	165	145	160	730

The Supplemental Security Income (SSI) program provides federally funded monthly cash payments--based on uniform, nationwide eligibility rules--to needy aged, blind, or severely disabled people. In addition, all but seven states and jurisdictions provide supplemental payments. Because SSI is a means-tested program, its benefits are reduced by recipients' outside income, subject to certain exclusions. For unearned income--most of which is Social Security--the first $20 a month is excluded and any additional amounts reduce benefits dollar for dollar. Earned income is excluded more liberally, and any of the $20 exclusion that is not applied to unearned income is applied to earned income.

Reducing the monthly $20 exclusion to $15 would save $110 million in 1998 and $730 million over the 1998-2002 period. A program that ensures a minimum living standard for its recipients need not provide a higher standard for people who happen to have unearned income, as illustrated by the absence of any standard exclusion for unearned income (other than child support) in the Aid to Families with Dependent Children program.

Nevertheless, reducing the monthly $20 exclusion by $5 would decrease by as much as $60 a year the incomes of the roughly 2.5 million low-income people--approximately 40 percent of all federal SSI recipients--who will benefit from the exclusion in 1998. Even with the full $20 exclusion, incomes of most SSI recipients fall below the poverty threshold.

ENT-29 CREATE A SLIDING SCALE FOR CHILDREN'S SSI BENEFITS BASED ON THE NUMBER OF RECIPIENTS IN A FAMILY

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	0	85	130	115	135	465
Outlays	0	85	130	115	135	465

The Supplemental Security Income (SSI) program, administered by the Social Security Administration (SSA), provides cash benefits to elderly and disabled people with low incomes and qualifies them for Medicaid coverage. In addition, most states provide supplemental payments to SSI recipients. In recent years, the number of disabled children receiving SSI benefits has grown sharply, from almost 300,000 in 1989 to about 1 million in 1996. Children received approximately $5 billion in federal SSI benefits in 1996, accounting for almost one-quarter of federal SSI benefits paid that year to disabled recipients.

The increasing participation of children in the SSI program for the disabled stems in part from the Supreme Court's decision in *Sullivan v. Zebley* in 1990. That case broadened the eligibility rules for disabled children and led to a significant effort by SSA to inform possible beneficiaries of their potential eligibility for the program. In the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, the Congress tightened the definition of disability for children, largely restoring a pre-Zebley standard. Nevertheless, the program is expected to begin growing again after the cuts required by the welfare reform law are fully carried out in 1998.

Unlike that in other means-tested programs, the amount of SSI benefits that a family receives for each additional member who qualifies does not decline as more family members participate in the program. For example, a family with one child qualifying for SSI benefits could receive up to $484 a month in 1996, or more than $5,700 a year, if the family's income (not including the SSI benefits received) was under the cap entitling them to the maximum benefit. If the family had a second child qualifying for benefits, it could have received an additional $484 a month for that child. The amount of benefits children receive is based only on the presence of a disability and the family's resources, not on the nature or severity of the qualifying disability.

This option would create a sliding scale for SSI disability benefits, so that a family would receive lower benefits per child as the number of children in the family qualifying for benefits increased. The sliding scale used for this option was recommended by the National Commission on Childhood Disability in 1995. It would keep the maximum benefit for one child receiving benefits as it is in current law, but further benefits would be reduced for each additional child in the family participating in the program. For example, if such a sliding scale were in place in 1997, the first child in a family qualifying for the maximum benefit would receive $484. The second child in such a family would receive $302, and the third would receive $257. Benefits would continue to decrease for additional children, but very few families have more than three children receiving SSI benefits. As with current SSI benefits, the sliding scale would be adjusted each year on the basis of the consumer price index.

SSA does not maintain data on multiple recipients of SSI in a household, and this option would be fairly laborious for the agency to carry out. Therefore, the Congressional Budget Office assumes that the new sliding scale would become effective in January 1999. About 90 percent of child recipients would be unaffected by the proposal, and the remaining 10 percent would have their benefits reduced by an average of about one-quarter. Altering the structure of SSI benefits in that manner would save $85 million in 1999. Over the 1999-2002 period it would save a total of $465 million.

Proponents of this option note that benefits awarded according to the proposed gradation take into account the economies of scale that are involved in raising more than one child. Since the amount of benefits that children obtain is not related to the severity of the disability, proponents argue that the benefits a family with several disabled children receives are greater than what is needed. The extra medical costs that disabled children might incur, which are not subject to economies of scale, would be covered by Medicaid as they are under current law.

Opponents of this measure argue that children with disabilities sometimes have additional expenses unique to their particular problems that may not be affected by economies of scale. Some of those costs are associated with various forms of therapy, modifications to housing facilities, and specialized equipment. If those additional costs were not covered by Medicaid, reducing cash benefits might adversely affect such families in a way that would not exist if the SSI program continued to use its current income test.

ENT-30 REDUCE THE FEDERAL MATCHING RATE AND INCREASE FEES IN THE CHILD SUPPORT ENFORCEMENT PROGRAM

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
	Reduce the Federal Matching Rate					
Budget Authority	700	760	840	920	990	4,210
Outlays	700	760	840	920	990	4,210
	Charge Fees for Services					
Budget Authority	310	340	380	410	450	1,890
Outlays	310	340	380	410	450	1,890

NOTE: These estimates do not take into consideration the interaction between the two options, which is noted in the discussion.

Enacted in 1975, the Child Support Enforcement (CSE) program provides administrative tools and funding that states can use to improve the payment of child support by absent parents. The federal government helps states finance their CSE efforts by paying 66 percent of the costs and making incentive payments. As a result of that federal funding and because states keep a portion of child support collections, states saved $400 million in 1995. By contrast, the federal government incurred costs of about $1.3 billion in 1995, after accounting for the share of child support collections that is allotted for reducing welfare payments.

Reduce the Federal Matching Rate. The Congressional Budget Office estimates that lowering the federal matching rate from 66 percent to 50 percent in 1997 and subsequent years would save $700 million in 1998 and $4.2 billion through 2002, although the amount of savings could vary, depending on how states reacted to the change. Under CBO's assumptions, states would experience net costs in 2001 and thereafter.

Reducing the federal share of CSE costs would alter the balance of costs and savings between the federal and state governments, decreasing both federal costs and state savings. Although a higher matching rate may have been needed in the past to induce states to set up CSE programs, such programs are now operating and cannot be dismantled without financial penalty. Also, this option would encourage states to improve the efficiency of their CSE efforts, since they would pay a larger share of the costs of inefficiencies, and could thus produce even lower program costs.

Lowering the matching rate would entail some risks, however. Because caseloads for child support workers are already high, it is unlikely that states could improve efficiency enough to offset the reduction in federal payments. Thus, they might cut CSE services, thereby reducing child support collections.

Charge Fees to Some Families. Although states are required to charge application fees for furnishing child support services to families not receiving cash assistance through the Temporary Assistance to Needy Families (TANF) program, many states charge only nominal amounts. In 1995, child support enforcement agencies collected fees of about $35 million, or less than 2 percent of total program costs. This option would require states to charge non-TANF families a fee of $25 at the time they applied for services and a fee equal to 5 percent of any child support collected for them.

By charging these fees, the federal government would save $310 million in 1998 and $1.9 billion through 2002, at the current 66 percent federal matching rate. With a matching rate of 50 percent, as discussed above, savings would decline to $220 million in 1998 and $1.4 billion through 2002.

In view of the substantial services that many families receive from the CSE agencies, the fees would be a modest contribution toward meeting their costs. Charging fees could discourage some custodial parents from seeking assistance, however, potentially reducing collections of child support. For some families, the fees would be much higher than the cost of the services provided. The families most likely to be discouraged would probably be those most in need of the income, unless states chose to exempt low-income families from paying the fees.

ENT-31 REDUCE THE REPLACEMENT RATE WITHIN EACH BRACKET OF THE SOCIAL SECURITY BENEFIT FORMULA

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Outlays	190	750	1,620	2,680	3,580	8,820

Under current law, the basic Social Security benefit is determined by a formula that provides workers with 90 percent of their average indexed monthly earnings (AIME) up to the first bend point (which defines the first earnings bracket), plus 32 percent of the AIME in the second bracket, plus 15 percent of the AIME above the second bend point. One method of reducing initial Social Security benefits would be to lower those three rates by a uniform percentage.

Lowering the three rates in the benefit formula from 90, 32, and 15 percent to 87.3, 31.0, and 14.6 percent, respectively, would achieve an essentially uniform 3 percent reduction in the benefits of newly eligible workers, starting in 1998. Thus, a 62-year-old retiree who has always earned the average wage would receive initial benefits in 1998 of about 33 percent of preretirement earnings, compared with 34 percent if no change was made.

This reduction in the replacement rates would lower Social Security outlays by about $8.8 billion over the 1998-2002 period and by more in later years. Moreover, this option would reduce the benefits of all future retirees by essentially the same percentage. Furthermore, the option could be combined with a one-time cut in the cost-of-living adjustment to ensure that benefits for both current and future recipients would be reduced to a similar extent (see ENT-45). The combination would generate substantial budgetary savings and have a relatively small impact on both current and future beneficiaries.

Opponents contend that the Social Security Amendments of 1983 have already sharply reduced the benefits of future retirees and that further reductions would be unfair. In particular, the age at which unreduced Social Security retirement benefits are first available will rise in stages from 65 to 67 for workers turning 62 between 2000 and 2022. As a consequence, benefits for workers retiring after the turn of the century will be less than what would have been received had the full retirement age not been increased. For example, a worker who retires at age 62 in 2022 will receive 70 percent of the primary insurance amount, compared with 80 percent for a worker who retires at age 62 in 1997.

An alternative method of reducing Social Security benefits would leave replacement rates unchanged but narrow the AIME brackets over which those rates apply, perhaps by reducing the pace at which the brackets are indexed for inflation. That approach would exempt beneficiaries with the lowest AIME from the cut, but would impose benefit reductions unevenly among other recipients.

ENT-32 LENGTHEN THE SOCIAL SECURITY BENEFIT COMPUTATION PERIOD BY THREE YEARS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Outlays	50	200	520	1,010	1,640	3,420

Social Security retirement benefits are based on the average indexed monthly earnings (AIME) of workers in jobs covered by the system. The present formula computes AIME based on workers' best 35 years of employment. Lengthening the averaging period would generally lower benefits slightly by requiring more years of lower earnings to be factored into the benefit computation. This option would increase the AIME computation period gradually until it reached 38 years for people turning 62 in 2000 or beyond. That approach would save $3.4 billion over the next five years and more in later years.

One argument for a longer computation period is that people are now living longer and the normal retirement age for the Social Security program will be raised beginning in 2000. In addition, lengthening the averaging period would reduce the advantage that workers who postpone entering the labor force have over those who get jobs at younger ages. Because many years of low or no earnings can be ignored in calculating AIME, the former group currently experiences little or no loss of benefits for its additional years spent not working and thus not paying Social Security taxes.

Opponents argue that because some beneficiaries elect early retirement for such reasons as poor health or unemployment, this proposal would adversely affect recipients who were least able to continue working. Other workers who would be disproportionately affected include those with significant periods outside the Social Security system, such as parents--usually women--who interrupted their career to rear children and workers who were unemployed for long periods of time.

ENT-33 ELIMINATE SOCIAL SECURITY BENEFITS FOR CHILDREN OF RETIREES AGES 62 TO 64

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Outlays	90	250	410	490	490	1,730

Unmarried children of retired workers are eligible for Social Security benefits as long as they are under age 18, attend elementary or secondary school and are under age 19, or become disabled before age 22. A child's benefit is equal to one-half of the parent's basic benefit, subject to a dollar limit on the maximum amount receivable by any one family. If such benefits were eliminated for the children of retirees ages 62 through 64, beginning with retirees reaching 62 in October 1997, the savings would total $1.7 billion over the next five years.

This option might encourage some early retirees to stay in the labor force longer. At present, although benefits for retired workers and their spouses are actuarially reduced if retirement occurs before age 65, children's benefits are not. Further, the younger the workers are, the more likely they are to have children under 18. Thus, workers under 65 now have an incentive to retire while their children are still eligible for benefits, although that incentive is quite small for families in which spouses are also entitled to dependents' benefits. For those families, the increase in total benefits attributable to all eligible children cannot exceed 38 percent of the worker's primary insurance amount.

However, for families with workers whose retirement was not voluntary--because of poor health or unemployment, for example--the loss in family income might cause some hardship. Moreover, since spouses under 62 receive benefits only if their children under age 16 also receive benefits, eliminating children's benefits for families of early retirees would also result in the entire loss of benefits for spouses in some families. In such cases, the total loss of income would generally be large.

A different approach would apply the same actuarial reduction to children's benefits that is applied to the benefits of the worker on whom those benefits depend. Thus, for example, the child of a worker retiring at age 62 would receive a maximum of 40 percent of the parent's basic benefit, instead of the 50 percent that is currently allowed. Such an approach would avoid large losses in benefits for workers with young children, but would save less.

ENT-34 CONSIDER VETERANS' COMPENSATION WHEN DETERMINING SOCIAL SECURITY DISABILITY INCOME PAYMENTS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
	Coordinate Benefits for All Veterans Receiving Compensation					
Outlays	70	105	115	125	135	550
	Coordinate Benefits for Veterans Newly Awarded Disability Insurance					
Outlays	5	20	35	50	65	175

People with disabilities may qualify for cash payments from more than one source, including the Social Security Disability Insurance (DI) program, veterans' compensation, workers' compensation, means-tested programs such as Supplemental Security Income, and private disability insurance. If they are younger than 65 and covered under Social Security, workers who are unable to work because they are physically or mentally impaired may qualify for DI payments.

When Social Security beneficiaries are eligible for multiple disability benefits, ceiling arrangements limit combined public disability benefits to 80 percent of the workers' average earnings before they were disabled. The combined payment after the reduction is adjusted periodically for changes in the cost of living and national average wage levels. Veterans' compensation payments for disabilities, however--as well as means-tested benefits and certain benefits based on public employment--are not included when applying the ceiling.

Approximately 2.3 million veterans--about 1.3 million of whom are under age 65--receive compensation for service-connected disabilities. The amount of compensation is based on a rating of an impairment's average effect on a person's ability to earn wages in civilian occupations. Additional allowances are paid to veterans whose disabilities are rated 30 percent or higher and who have dependent spouses, children, or parents. An estimated 100,000 veterans who receive compensation also receive DI payments from the Social Security program.

This option, which has two variations, would include veterans' compensation within the scope of the ceiling. (The combined payment, however, would never be less than either the DI benefit or the veterans' compensation payment.) Under both versions, compensation would be totaled when determining how much the DI benefit of an individual who is under 65 years old would be reduced to keep the combined benefit from exceeding the ceiling. One version of the option would apply that change to all current and future recipients of DI benefits. The other version would limit application of the option to veterans who newly qualify for Disability Insurance benefits.

Applying the change to both current and future recipients of veterans' compensation would affect an estimated 40,000 recipients in 1998 and would save an estimated \$550 million over the 1998-2002 period. Applying the change only to veterans who were newly awarded compensation payments would affect an estimated 25,000 recipients by 2002 and would save an estimated \$175 million over the 1998-2002 period.

Putting those options into effect would mean that an explicit policy would determine the total amount of public compensation for veterans who have service-connected disabilities. Thus, the federal government would treat in a more consistent way people who re-

ceive cash disability payments from multiple programs that are not means-tested. Both versions of the option could, however, be seen as subjecting Social Security disability benefits to a form of income testing. Moreover, under the variation of this option that would apply to current recipients of DI benefits, the incomes of some disabled veterans would drop.

ENT-35 END FUTURE VETERANS' COMPENSATION PAYMENTS FOR CERTAIN VETERANS WITH LOW-RATED DISABILITIES

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Budget Authority	34	105	179	256	337	911
Outlays	31	99	188	235	331	884

Approximately 2.3 million veterans who have service-connected disabilities receive veterans' disability compensation benefits. The amount of compensation is based on a rating of the individual's impairment that is intended to reflect an average reduction in the ability to earn wages in civilian occupations. Veterans' disability ratings range from zero to 100 percent (most severe). Veterans unable to maintain gainful employment who have ratings of at least 60 percent are eligible to be paid at the 100 percent disability rate. Additional allowances are paid to veterans who have disabilities rated 30 percent or higher and who have dependent spouses, children, or parents. Receiving veterans' disability compensation does not affect the level of Social Security disability benefits to which an individual may be entitled (see ENT-34).

About 60,000 veterans who have disability ratings below 30 percent are added to the rolls every year, receiving benefits of between $74 and $179 a month. Federal outlays could be reduced by $884 million during the 1998-2002 period by ending benefits for low-rated disabilities in future cases.

Ending compensation benefits in the future for veterans with disability allowances below 30 percent would concentrate spending on the most impaired veterans. Because performance in civilian jobs depends less now on physical labor than when the disability ratings were originally set, and because improved reconstructive and rehabilitative techniques are now available, physical impairments rated below 30 percent may not reduce veterans' earnings. Low-rated disabilities include conditions such as mild arthritis, moderately flat feet, or amputation of part of a finger--conditions that would not affect the ability of veterans to work in many occupations today.

Veterans' compensation could be viewed, however, as career or lifetime indemnity payments owed to veterans disabled to any degree while serving in the armed forces. Moreover, some disabled veterans--especially older ones who have retired--might find it difficult to increase their working hours or otherwise make up the loss in compensation payments.

ENT-36 END VETERANS' DISABILITY AND DEATH COMPENSATION AWARDS IN FUTURE CASES WHEN A DISABILITY IS UNRELATED TO MILITARY DUTIES

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	46	142	242	348	459	1,237
Outlays	41	130	259	307	446	1,183

Veterans are eligible for disability compensation if they either receive or aggravate disabilities during active military service. Service-connected disabilities are defined as those resulting from diseases, injuries, or other physical or mental impairments that occurred or were intensified during military service, excluding those resulting from willful misconduct. Disabilities need not be incurred or made worse while performing military duties to be considered service-connected; for example, disabilities incurred while on leave also qualify. The federal government gives death compensation awards to survivors when a service-connected disability is related to the cause of death.

As many as 50 percent of veterans receiving compensation payments may be receiving compensation for injuries or diseases not related to the performance of military duties. Ending disability and death compensation awards in future cases in which a disability is neither incurred nor aggravated while performing military duties would reduce outlays by $1.2 billion over five years. Approximately 2 percent of those savings would come from reduced death compensation awards.

This option would make disability compensation of military personnel comparable with disability compensation of federal civilian employees under workers' compensation arrangements. Because military personnel are assigned to places where situations may sometimes be volatile, however, they have less control than civilians over where they spend their off-duty hours. Therefore, in many cases it might be difficult to determine whether a veteran's disease, injury, or impairment was entirely unrelated to military duties. The formal appeals system of the Department of Veterans Affairs (VA) could be extended to cover rulings specifying that disabling conditions were unrelated to military duties.

Data collected by the VA indicate that about 230,000 veterans receive VA compensation payments totaling $1.1 billion a year for diseases that the General Accounting Office (GAO) reports are generally neither caused nor aggravated by military service. The diseases include arteriosclerotic heart disease, diabetes mellitus, multiple sclerosis, Hodgkin's disease, chronic obstructive pulmonary disease (including chronic bronchitis and pulmonary emphysema), hemorrhoids, schizophrenia, osteoarthritis, and benign prostatic hypertrophy. Ending new awards for veterans with those diseases would have a more limited impact than this option because it would not affect all veterans whose compensable disabilities are not connected with military service. It could, however, eliminate compensation for some veterans whose disabilities GAO finds are not generally service-connected but whose circumstances constitute an exception from this general conclusion. That approach would yield smaller savings than the previous measure--about $400 million over the 1998-2002 period.

ENT-37 ELIMINATE "SUNSET" DATES ON CERTAIN PROVISIONS FOR VETERANS IN THE OMNIBUS BUDGET RECONCILIATION ACT OF 1993

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	0	649	661	674	692	2,675
Outlays	0	642	742	672	728	2,638

Four provisions in law that affect veterans will cease to apply on September 30, 1998--their "sunset" date. As a result, starting in 1999, outlays will be higher than if the provisions remained in effect. Those provisions have:

- o Protected the monthly benefit for certain pensioners who have no dependents and are eligible for Medicaid coverage for nursing home care, thus saving the Department of Veterans Affairs (VA) pension costs but increasing costs for the Medicaid program, which is paid for by the federal and state governments;

- o Authorized the Internal Revenue Service to help the VA verify incomes reported by beneficiaries, for the purpose of establishing eligibility for pensions and benefits;

- o Increased the fees charged for first-time and repeated use of the veterans home loan program;

- o Authorized the VA to collect from any health insurer that contracts to insure a veteran with service-connected disabilities the reasonable cost of medical care provided by the VA for the treatment of non-service-connected disabilities; and

- o Authorized the VA to charge copayments to certain veterans receiving inpatient and outpatient care and outpatient medication from agency facilities.

This option would make the effects of those provisions permanent by eliminating the sunset date in each case. If all four provisions were made permanent, savings from current-law spending during the 1998-2002 period would total almost $2.7 billion.

The main advantage of this option is that it would convert the temporary savings achieved by those provisions into continuing savings. The main disadvantage of the option is that certain veterans or their insurers would be worse off financially. States would also face higher Medicaid costs because of withdrawn federal funds for nursing home care.

ENT-38 REVISE THE TERMS OF THE MONTGOMERY GI BILL PROGRAM

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	110	128	144	162	180	724
Outlays	110	128	144	162	180	724

The Montgomery GI Bill (MGIB) was created as a reward for military service and an incentive for young people to enlist in the armed forces. Since its establishment in 1985, the program has helped to fund the education of nearly 560,000 participants, more than one-half of whom received benefits in 1996. A person beginning active duty can choose to participate by contributing $100 a month for the initial 12 months of service--an amount that has not increased since the program's inception. Veterans or active-duty personnel can then elect to begin receiving benefits--about $417 a month for a full-time program of study in 1996--when they enroll in an authorized program of study. In addition, about 94,000 veterans and members of the selected reserves are eligible for about $198 a month in MGIB benefits. Members of the reserves make no contribution. The size of the benefit, for veterans of both active duty and selected reserve service, is indexed to the consumer price index (CPI), and those who began a full-time program of study in 1996 can expect to receive benefits totaling as much as $15,000 (in 1996 dollars) under current law.

This option would limit the cost of the MGIB in three ways. First, it would lower the cost-of-living adjustment (COLA) in benefits to one-half the change in the CPI. Second, it would raise the initial contribution of active-duty personnel from $1,200 to about $1,600 in 1998 and increase it in subsequent years by the same percentage that benefits are increased. Third, the option would require a contribution from reserve personnel proportional to the contributions from the active force; it would also subject their benefits to the lower COLA. Those three changes would save $110 million in 1998 and a total of $724 million through 2002.

Opponents of the option would argue that the MGIB is an effective tool for recruiting the kinds of people that the nation needs to operate high-technology weapons and other equipment. They would contend that the MGIB is more cost-effective than enlistment bonuses in expanding the pool of prospective recruits. It encourages recruits to complete their initial term of enlistment and increases the probability that they will join a reserve component. Opponents would also argue that current and prospective members of the military would view this option as an erosion of benefits and a sign that the military places a lower value on recruiting well-motivated and highly skilled individuals. Moreover, if reducing benefits would affect recruiting and force the military services to expand other recruiting programs, savings from curtailing MGIB benefits would overstate net savings to the Department of Defense (DoD). Opponents would also observe that college costs have continued to rise about twice as fast as the CPI. Therefore, continuing the current growth rate of benefits is necessary for MGIB to be an effective enlistment incentive.

Conversely, proponents of this option would say that current law has allowed benefits to increase with inflation but keeps contributions fixed, thus providing a richer net benefit each year. At the program's inception, benefits were nine times greater than contributions. They are now more than 12 times greater than the contributions--and the multiple will continue to grow every year unless the Congress acts to change the program. Proponents would argue that this increasing generosity cannot be justified by the need to recruit a high-quality force; DoD has exceeded its quality goals every year since at least 1992. The Department of Defense wants 90 percent of its recruits to have a high school diploma and 60 percent to score above average on the Armed Forces Qualifying Test (AFQT). In just the last two years, new recruits have exceeded these standards--each year, 96 percent had high school diplo-

mas and about 70 percent scored above average on the AFQT. Moreover, the armed forces need a smaller percentage of the targeted population than they did in the 1980s when the program was created and the force was larger by half. Proponents of the option would argue that fine-tuning this educational benefit to the post-Cold War environment would still allow DoD to maintain a highly skilled force. Finally, MGIB did not provide for any cost-of-living adjustment in benefits for its first seven years and only provided for a half COLA when such adjustments were initially made. In keeping with this history, the Senate Veterans Affairs Committee unanimously passed a provision containing a half COLA in its Reconciliation Recommendation of 1995.

ENT-39 EXTEND AND INCREASE COPAYMENTS ON DRUGS AND MEDICAL SUPPLIES PROVIDED TO VETERANS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
			Extend Copayment Requirement Beyond 1998			
Budget Authority	0	36	38	39	41	153
Outlays	0	36	38	39	41	153
			Increase Copayment Amount			
Budget Authority	0	176	236	298	301	1,012
Outlays	0	176	236	298	301	1,012
			Add Over-the-Counter Copayment			
Budget Authority	0	182	250	319	322	1,074
Outlays	0	182	250	319	322	1,074

After 1998, unless the Congress acts, the Department of Veterans Affairs (VA) will deliver a comprehensive range of medical benefits to many veterans at no charge. For example, a provision setting a $2 copayment for prescription drugs will expire in September 1998. When it does, VA pharmacies will return to a practice of filling, at no cost to the veteran, prescriptions for drugs as well as pharmacy products that are generally available over the counter (OTC) at retail pharmacies. To illustrate alternatives to that practice, CBO developed three options: the first would merely extend the prescription drug and OTC copayments required under current law; the second would gradually increase the amount of that copayment; and the third would increase currently required copayments and add a new copayment for OTC products that are currently provided free of charge.

Extension of Copayments Under Current Law. Current law provides that the VA will charge veterans a $2 copayment for a 30-day supply of a prescription drug, OTC medication, or dietary supplement. According to the General Accounting Office (GAO), the most frequently prescribed OTC medications are aspirin and insulin, and the most frequent dietary supplements are Sustacal and Ensure. Not all veterans are required to pay. Those who are admitted to hospitals, have a service-connected disability rated 50 percent or more, or lack the resources to pay are exempt from the requirement.

This option would eliminate the sunset provision in current law and extend the $2 copayment indefinitely. (That is one of several sunset provisions analyzed in ENT-37.) The action would save $153 million from 1999 through 2002.

Increase the Copayment for Prescription Drugs and OTC Medications. Another option would extend the copayment requirement and gradually increase the copayment amount. The copayment would increase by $1 a year, until it reaches $5 for a 30-day supply. This option would go a step further and require that the VA collect the copayment in all applicable cases by removing discretion in collecting the copayment. (Currently, VA facilities collect only a portion of the applicable copayments.) Increasing the copayment amount and removing VA discretion would save $176 million in 1999 and about $1 billion through 2002.

Proponents might argue that eventually requiring a $5 copayment would make the VA benefit for prescription drugs more consistent with other health delivery systems, including Medicare and managed care pro-

grams in the private sector. Even in Medicaid programs, nominal copayments help offset benefit costs and provide economic incentives for more prudent consumption of prescriptions.

Opponents might charge that some veterans who have multiple chronic illnesses may be overburdened by the increased cost sharing. They might claim that this requirement would place an undue financial burden on chronically ill veterans and their families. To avoid this, the Congress could limit the total number of prescriptions subject to a copayment in any given month.

Over-the-Counter Medical Supplies. For even greater savings, the VA could gradually institute a $6 copayment for a 30-day supply of OTC medical supplies, in addition to the copayment for OTC medications and dietary supplements. (According to the GAO, the most frequent OTC medical supplies are alcohol prep pads and glucose test strips.) That option would make the copayment $2 in 1998, $4 in 2000, and $6 in 2001 and thereafter. This option also assumes that the VA would collect a copayment in all of the applicable cases. A copayment for OTC medical supplies, coupled with the increase in existing copayments described above, would save a total of $182 million in 1999 and nearly $1.1 billion over the 1999-2002 period.

Proponents could argue that there is no clinical reason that OTC medical supplies should be exempt from beneficiary cost sharing. Most public and private health programs, even the most generous, do not cover OTC products, except for insulin and related supplies. The VA's pharmacy benefit is generous, even with the current $2 copayment on OTC medications and dietary supplements. The option would make the copayments more consistent with those for OTC pharmacy items. Also, cost sharing would enhance the economic incentives for more prudent consumption of medical supplies.

Opponents of the option may be concerned that veterans would be worse off financially under it. Veterans who have multiple chronic conditions that are not related to service and are treated mainly with OTC medical supplies from the VA could see substantial increases in their out-of-pocket costs. Although low-income veterans would be exempt from the copayment, others might be discouraged from using certain OTC medical supplies from the VA, which could affect the quality of their care.

ENT-40 INCREASE BENEFICIARY COST SHARING FOR VA NURSING FACILITY CARE

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	279	289	299	309	320	1,496
Outlays	279	289	299	309	320	1,496

Veterans may receive long-term care in a nursing home run by the Department of Veterans Affairs (VA), depending on the availability of resources. Such care is rationed primarily on the basis of service-connected disabilities and income. Under certain conditions, a veteran may also receive care at VA expense in state-operated or privately run nursing homes.

The Department of Veterans Affairs (VA) does not collect a copayment unless the veteran has no service connected disabilities and has an income above a certain level. By contrast, state-operated homes for veterans and community long-term care facilities that treat veterans apply their own copayment policies. In 1995, veterans who were required to contribute toward the cost of Vaoperated nursing home care paid a rate equivalent to about $13 a day. A study by the General Accounting Office found that the VA recovers less than one-tenth of 1 percent of the costs of operating its own nursing facilities, but state-operated veterans' nursing facilities are known to recover as much as 43 percent of their operating expenses through copayments. Estate recovery programs are another way to offset costs.

This option would require the VA to recover 10 percent of the operating costs for its own nursing facilities. The savings could come from applying the current copayment requirement to a broader category of veterans or from raising the copayments required of veterans who are currently required to contribute. Recovering 10 percent of VA operating costs would save $279 million in 1998 and $1.5 billion over five years. (Achieving those savings would require that the VA not be allowed to retain and spend the receipts; instead, they would be deposited in the Treasury.)

Proponents of this option would argue that veterans in VA-run nursing homes are getting a far more generous benefit than similar veterans in other facilities or those who receive the same kind of care at their home. Because VA-run nursing homes are relatively scarce, veterans lucky enough to be admitted to one have an unfair advantage over those who are equally deserving. Recovering more of the expenses of VA nursing homes would make the benefit more equitable among veterans and sites of care.

Opponents of this option would argue that beneficiaries in VA nursing facilities may have less ability to make copayments than beneficiaries in state-operated homes. For example, VA disability compensation payments cease when veterans get long-term care directly from the VA, unlike payments to veterans in state-run homes. Thus, they would claim that to recover 10 percent of its operating expenses, the VA would have to place an unfair burden on veterans who are now required to make copayments.

ENT-41 ELIMINATE THE PRESIDENTIAL ELECTION CAMPAIGN FUND AND RAISE THE LIMIT ON PRESIDENTIAL CAMPAIGN CONTRIBUTIONS BY INDIVIDUALS

Savings from Current-Law Spending	Annual Savings (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Outlays	0	26	230	44	1	301

Presidential campaigns are unique among contests for federal office because, by and large, they are financed by public money. Under current law, the public finances a large share of the costs of Presidential campaigns through the federal income tax "check-off" program. By voluntarily designating a portion of their annual federal income tax liability--$3 for individual filers and $6 for joint returns--taxpayers earmark funds for the Presidential Election Campaign Fund (PECF). Subsequently, during each Presidential election cycle, those public funds are made available by the Treasury to Presidential candidates and political parties that are certified by the Federal Election Commission as meeting federal eligibility requirements. During the 1996 Presidential campaign, for example, about $235 million was disbursed from the PECF. By contrast, candidates for office in the Senate or House of Representatives rely solely on private funds to cover the costs of their campaigns.

In return for public funding, Presidential candidates and political parties agree to comply with federally imposed limits on campaign expenditures. Candidates who do not accept public funding, the Supreme Court has ruled, may not be restricted in their spending. However, all candidates must adhere to federal limits on campaign contributions that restrict donations by individuals to $1,000. That is the same limit that was imposed in 1974 when contribution limits first became effective.

The Congress could eliminate the Presidential Election Campaign Fund after the 1996 election cycle and raise the threshold on contributions by individuals to account for price changes since 1974. A similar proposal was included in the original version of the Senate budget resolution for fiscal year 1996. By terminating the check-off program and raising the contribution limit, the government could save about $300 million over the next five years, and Presidential candidates and political parties would be given sufficient notice to adjust their fundraising activities.

Public funds are provided through the PECF in three main ways. First, dollar-for-dollar matching funds for contributions by individuals of up to $250 are made available to Presidential primary candidates who meet federal eligibility requirements. To become eligible, candidates must raise $5,000 or more in each of 20 states in matchable individual contributions of $250 (that is, $100,000 in all).

Second, the PECF provides entitlements to major political parties to cover the costs of nominating conventions. Existing minor political parties may also become eligible to receive grants, but in amounts that are a fraction of those for major parties. New political parties, however, are not eligible to receive grants for nominating conventions.

Third, the PECF provides entitlements to the general election candidates of major parties and to the candidates of minor and new parties, but in lesser amounts. The candidates of minor political parties may receive funding on the basis of political performance in the previous Presidential election, and postelection subsidies are made available to candidates of new parties on the basis of electoral performance. For example, because Ross Perot obtained nearly 50 percent of the average popular vote received by the two major party candidates during the 1992 Presidential election, he was entitled to about $29 million in federal funding for his 1996 campaign effort. By contrast, the major candidates each received $61.8 million after their party's nominating convention--the amount of the general election spending limit before the November 1996 election.

Critics of public financing for Presidential campaigns assert that the current system has not achieved its primary objectives of limiting the influence of special interests and eliminating the potential for financial misdeeds in Presidential elections. They also maintain that the limits on contributions by individuals and on campaign spending by candidates who accept public money are excessively low: the individual limit has never been adjusted to reflect growth in prices since 1974, and the spending limits do not reflect general trends in election spending. As a result, candidates are forced to devote a disproportionate share of their time to fundraising activities, and political parties and candidates are encouraged to exploit loopholes in the law and search for ways to circumvent spending and contribution caps.

In addition, many critics find little justification in providing such a large targeted benefit; millions of dollars in taxpayer funds are given to a handful of major party Presidential candidates, to well-financed political parties for nominating conventions, and to fringe candidates with no real chance of electoral success. Other critics argue that the eligibility requirements strongly favor the major parties at the expense of minor and new parties. They contend that a system of reasonable and strictly enforced contribution limits in conjunction with full public disclosure could better serve the public interest and reduce the costs of government.

Some critics also argue that the public funding system has had a negative impact on the electoral process. Because of the rigid limits imposed by the Federal Election Campaign Act of 1971 on candidates who accept public funds and on the activities of volunteers, they contend that the system has encroached on direct participation by voters and dampened civic enthusiasm. In the six Presidential elections that have taken place since public funding was introduced, average voter turnout was 12.7 percent lower than in the six previous elections. Finally, critics point to the income tax check-off program as evidence that a majority of citizens are opposed to public funding; less than 15 percent of taxpayers checked the box on their income tax returns.

Proponents of public funding point to the system's quiet successes. They contend that Presidential elections have been generally free from financial scandal and corruption since the system's inception, and the outcomes of elections have been determined largely on the merits of issues and individual candidates rather than on the ability to solicit large donations. Moreover, it is argued that through the PECF, the government is simply protecting the integrity of the electoral process and that the funding provided is not a high price for the nation to pay. Similarly, public funding has permitted several candidates who might otherwise have been shut out for lack of resources to make meaningful contributions to the national debate. In addition, those in favor of public funding assert that the money that minor party candidates qualify for constitutes a very small portion of total public spending on presidential elections (for the five elections between 1976 and 1992, the amount was less than 2 percent) and increases the chance that new voices will be heard in the campaign.

Proponents also claim that without public financing, the influence of special-interest money would become even more pervasive. Substituting higher limits on individuals' contributions for public funding, it is argued, would increase the political influence of wealthy contributors. Last, supporters of the current system argue that people who participate through the check-off program compose the single largest group of contributors to political campaigns--larger than direct contributors, campaign and party volunteers, or voters in Congressional elections. Thus, terminating the check-off program would significantly narrow the base of political contributors.

ENT-42 IMPOSE A COST-OF-CAPITAL OFFSET FEE ON FANNIE MAE AND FREDDIE MAC

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	900	900	900	900	900	4,500
Outlays	900	900	900	900	900	4,500

The interest rate that a firm must pay to borrow money depends on its credit rating. Greater financial strength in a borrower implies a higher level of credit quality (that is, less risk to the lender) and generally lowers the interest and other costs that borrowers must pay to obtain funds. But financial strength--especially when it is based on large amounts of shareholder-provided equity --comes at a price: shareholders must be compensated for the use of their money, which is at risk while it is raising the credit rating of the company.

The federal government helps government-sponsored enterprises (GSEs) reduce the cost of money from all sources by putting taxpayers' equity behind the GSEs' financial obligations. (A GSE is an enterprise that is established and chartered by the government for a specific financial purpose but is wholly owned by private stockholders.) The government's equity infusion is based on several provisions of law, including one that exempts the GSEs from many federal and state regulations designed to protect investors, and another that gives the GSEs a line of credit at the U.S. Treasury. Through such laws, the federal government sends a signal to investors that promises issued by a GSE are less risky than the GSE's financial condition would suggest. In other words, the federal government is a "shadow" provider of equity capital to the GSE; it stands in for other investors whose capital would be required in the government's absence to bolster the GSE's credit rating, and who would demand compensation for the use of their money.

As a consequence of the federal presence, GSEs are able to obtain funds in the capital markets at lower interest rates than those paid by private borrowers of comparable financial condition. Although estimates are uncertain, two of the GSEs--the Federal National Mortgage Association (FNMA, or Fannie Mae) and the Federal Home Loan Mortgage Corporation (FHLMC, or Freddie Mac)--probably save 70 cents (70 basis points) every year on every $100 of long-term debt that they owe because of their affiliation with the federal government. On mortgage-backed securities (MBSs) issued and guaranteed by the two GSEs, the cost advantage is smaller; nevertheless, it is probably about 35 cents (35 basis points) for every $100 of securities outstanding each year. Although those amounts might seem to be of small benefit, they add up to more than $6 billion a year because Freddie Mac and Fannie Mae have well over $1 trillion in outstanding securities. GSEs do not pay the government a fee or any other monetary compensation for the reduced cost of capital that they enjoy as a result of their status as sponsored enterprises. Instead, the GSEs pass through some of the savings in lower mortgage interest rates and provide mortgage market stabilization and leadership functions for the government.

More than 20 years ago, the federal government chartered Freddie Mac and Fannie Mae to give local retail mortgage lenders a conduit to the vast sums of money available in the bond markets. In doing so, the government hoped to avoid periodic credit shortages for home buyers. Federal policy giving mortgage lenders access to Wall Street through Fannie Mae and Freddie Mac has clearly succeeded. In successfully channeling money from investors to home buyers and back to investors, the housing GSEs have demonstrated the profitability of such activity. Consequently, credit is now reliably available to home buyers at all times. But an unfortunate side effect has been that the two GSEs now virtually monopolize the resale, or "secondary," market for the home mortgages they are permitted to buy. The GSEs dominate the market because the federal government's dividend-free equity reduces the cost of funds below that available to private competitors.

An offset fee based on the savings in capital costs that Freddie Mac and Fannie Mae derive from federal affiliation would be a step toward more equitable competition in the secondary market. In addition, it would partially compensate taxpayers for the value of the capital services that the government provides. Because of the differential effect of federal affiliation, fees need not be applied to both debt and mortgage-backed securities. (Such securities essentially give their buyers rights to share in the future stream of income generated by a large pool of mortgages put together by the GSE.) In fact, a fee of 20 basis points on average debt outstanding and no fee at all on MBSs would produce annual federal collections of $900 million based on the outstanding debt of the GSEs.

Initially, the fee would reduce the two GSEs' net income, which was $4 billion (after taxes) in 1996. Fannie Mae and Freddie Mac, however, could choose to avoid the fee by switching their financing sources from debt securities to MBSs. The housing GSEs may be reluctant to switch their funding to MBSs because the federal subsidy on debt would remain higher than on MBSs after the fee. Since no fee would be applied to MBSs, there would be no need for mortgage interest rates to rise.

From the taxpayers' perspective, a disadvantage of the fee is that it would reduce the market value of the enterprises and thereby reduce the cost to investors of "abandoning" the GSE to the government and sticking taxpayers with any accumulated losses. Of course, that is a disadvantage of any proposal that would reduce GSE subsidies, which are supporting the market value of the enterprises. As a reduction in the subsidy given to Fannie Mae and Freddie Mac, collections from the fee would be credited to a Treasury account as offsetting receipts, which are paid into the general fund. That same treatment has been applied to such fees proposed in the budget requests of previous Presidents.

Several federal agencies, including the Congressional Budget Office, have studied the feasibility and desirability of privatizing Freddie Mac and Fannie Mae. If the Congress decided to sever the federal government's links to those GSEs and thereby terminate the subsidy, the cost-of-capital offset fee would need to be repealed.

ENT-43 ELIMINATE THE ONE-DOLLAR BILL AND REPLACE IT WITH A NEW DOLLAR COIN

	Annual Budgetary Effects (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Revenues						
Addition to Current-Law Revenues	0	0	0	80	110	190
Direct Spending						
Increase (+) or Decrease (-) in Costs to the U.S. Mint						
Budget authority	89	282	-217	-142	-2	10
Outlays	89	282	-217	-142	-2	10

The United States is one of the few industrialized countries that continues to use paper bills for sums as small as a dollar. By contrast, the smallest paper note denominations in Spain (500 peseta/$3.50), France (20 franc/$3.50), Germany (10 mark/$5.90), Switzerland (10 franc/$6.85), and Great Britain (5 pound/$8.10) are significantly more valuable than the one-dollar bill.

Each year, the Bureau of Engraving and Printing (BEP) within the Department of the Treasury manufactures billions of currency notes, and one-dollar notes account for approximately 40 to 50 percent of the total produced. Vast quantities of one-dollar notes must be printed each year because they lack durability: they circulate, on average, only 18 months before they must be retired. By contrast, coins may remain in circulation for up to 30 years. Because of that longevity, the long-run annual cost of keeping a dollar coin in circulation would be about 2 cents to 3 cents lower than the corresponding cost of a note.

Because the federal budgetary accounting of coin and currency operations is extraordinarily complex, enacting this proposal would affect three areas of the budget: revenues, direct spending, and the cost of financing the federal deficit. The net budgetary effect of eliminating the one-dollar bill and replacing it with a coin would be to reduce the deficit by $180 million over the next five years. This estimate assumes 30 months of lead time for the U.S. Mint to produce and stockpile new dollar coins before their introduction into circulation.

First, revenues would increase by $190 million over the next five years. Revenues would rise because the costs to the government (that is, the Federal Reserve System) of producing and maintaining the nation's supply of currency would fall. Costs would decline because the Federal Reserve could forgo annual purchases of billions of one-dollar notes (although the decline would be offset in part by the cost of increased purchases of two-dollar notes) and because coins would not require the more costly inspection that notes currently receive. As a result, Federal Reserve System earnings, which are remitted to the Treasury and counted in the federal budget as miscellaneous receipts (revenues), would rise. Moreover, significant increases in revenues would accrue in the long run--on the order of $150 million per year--once the changeover from notes to coins was complete.

Second, net direct spending by the government would increase by $10 million over the next five years. Direct spending would increase in the short run because of a lag between the time the Mint would incur the costs of producing a new dollar coin and the date on which the government would circulate and realize a profit on it. Costs include research and development, metals acquisition, new capital equipment, storage for coins stockpiled before their circulation, and a public aware-

ness campaign. In the first two years, those costs would increase direct spending by an estimated $371 million. The resources to pay for increased direct spending would come from the profit (or seigniorage, the difference between the face value of coins and their cost of production) that the government earns on the manufacture of existing coins and their subsequent deposit at the Federal Reserve. Beginning in fiscal year 2000, the Mint would recoup those costs. Previous increases in direct spending would be fully offset in the budget by 2002, except for that portion of Mint costs attributable to depreciation of new capital equipment. Over time, however, the net effect on direct spending would be zero.

Third, replacing one-dollar notes with coins would reduce the cost of financing the federal deficit, which would lead to long-run savings far greater than the direct savings to the government through 2002. Such long-run savings would be generated only if the public was willing to hold more than a single dollar coin for each one-dollar note. In fact, the experience of other countries strongly suggests that the public would hold a larger amount of non-interest-bearing coin and currency after the conversion is complete. For example, the Federal Reserve and the General Accounting Office estimate that the public would hold $9 billion in one-dollar coins and $1.5 billion in additional notes for the $6 billion in one-dollar bills that is currently held. That would permit the government to finance $4.5 billion of federal debt by issuing non-interest-bearing coins and currency instead of interest-bearing Treasury securities. With interest rates at 6 percent, the government would save $270 million in interest per year. Because interest costs would be reduced in the first year, borrowing from the public would be lower in all subsequent years, resulting in additional savings. However, the effects on federal borrowing are not included in the estimate for any option because they constitute an indirect or second-order budgetary impact.

Proponents of replacing one-dollar notes with a dollar coin also argue that a coin would be easier for the visually impaired to distinguish and easier to use in most vending machines. They say that the dollar coin would also increase the speed of many low-level business transactions. Conversely, critics argue that the government would need to take strong measures to ensure the coin's acceptance and avoid the failures associated with the Susan B. Anthony dollar. According to that view, the government would have to be prepared to eliminate the dollar note completely, ensure that the new coin's form was distinct from those of other coins, and promote it vigorously. Even so, critics contend there is no guarantee that a new dollar coin would gain public acceptance. Coins are bulky, and commercial banks, which shoulder the majority of coin processing costs, would see their expenses rise. Finally, critics assert that the focus on budgetary savings should not come at the expense of other significant factors, such as the importance of a convenient currency, an efficient payments system, and a coin that meets the needs of citizens.

ENT-44 RESTRICT COST-OF-LIVING ADJUSTMENTS IN NON-MEANS-TESTED BENEFIT PROGRAMS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Eliminate COLAs for One Year						
Social Security and Railroad Retirement	7,850	10,630	10,830	10,880	10,890	51,080
Other Non-Means-Tested Programs	1,950	2,530	2,710	2,670	2,770	12,640
Offsets in Means-Tested Programs and Medicare Premiums	-660	-490	-370	-380	-380	-2,270
Total	9,140	12,670	13,170	13,170	13,280	61,450
Limit COLAs to Two-Thirds of the CPI Increase for Five Years						
Social Security and Railroad Retirement	2,610	6,450	10,560	14,860	19,340	53,830
Other Non-Means-Tested Programs	650	1,550	2,630	3,580	4,710	13,120
Offsets in Means-Tested Programs and Medicare Premiums	-90	-340	-680	-1,040	-1,420	-3,570
Total	3,170	7,660	12,510	17,400	22,630	63,380
Limit COLAs to the CPI Increase Minus 0.5 Percentage Points for Five Years						
Social Security and Railroad Retirement	1,400	3,360	5,440	7,620	9,890	27,710
Other Non-Means-Tested Programs	350	810	1,360	1,840	2,420	6,770
Offsets in Means-Tested Programs and Medicare Premiums	-50	-170	-330	-520	-730	-1,810
Total	1,700	4,000	6,470	8,940	11,580	32,670
Pay the Full COLA on Benefits Below a Certain Level and 50 Percent of the COLA on Benefits Exceeding That Level for Five Years						
Social Security and Railroad Retirement	0	-820	-1,950	-3,130	-4,350	-10,250

Under current policies, outlays for Social Security and other non-means-tested cash transfer programs with benefits indexed to the consumer price index (CPI) are expected to total about $460 billion in 1998 and to rise to $580 billion by 2002. Reducing the automatic cost-of-living adjustment (COLA) for those programs is commonly proposed as one way to slow the growth in entitlement spending. Four strategies for reducing COLAs and the savings in outlays resulting from each are shown in the preceding table. The programs in which COLAs would be reduced under the first three options are Social Security Old-Age, Survivors, and Disability Insurance; Railroad Retirement; Civil Service Retirement; Military Retirement; workers' compensation for federal employees; veterans' compensation; and retirement benefits for the Foreign Service, the Public Health Service, and the Coast Guard. The fourth option would affect only Social Security and Railroad Retirement Tier I COLAs. (Other options for achieving savings in Social Security are given in ENT-32 through ENT-35 and REV-15.)

COLA restrictions would achieve considerable savings by exacting small reductions in benefits from a large number of people, in contrast to other budget options that would impose large reductions in benefits on smaller groups of recipients. Moreover, limiting these options to the non-means-tested cash benefit programs would protect many of the poorest beneficiaries of entitlements--for example, recipients of Supplemental Security Income--from losses of income. Finally, because the benefit levels would be permanently lowered for eligible people when the COLA limitation was established, significant reductions in outlays would persist beyond the six-year projection period. The savings would eventually disappear, however, as beneficiaries died or stopped receiving payments for other reasons, unless the COLA limitation was accompanied by a permanent reduction in the initial benefits of newly eligible workers (see ENT-32).

Another argument in favor of less-than-complete price indexing is that the consumer price index (CPI) probably overstates increases in the cost of living for the population as a whole. Many analysts feel that the CPI overstates increases in the cost of living, although the magnitude of the overstatement and what should be done about it are subject to much debate. For example, the Advisory Commission to Study the Consumer Price Index (also known as the Boskin Commission) recently estimated the size of the upward bias to be about 1 percentage point per year. To the degree that the CPI overstates increases in beneficiaries' cost of living, the COLA could be reduced without lowering beneficiaries' real benefits below what they received when they became eligible for the program.

Budget reduction strategies that institute less-than-complete price indexing would result in financial difficulties for some recipients--particularly if COLAs were restricted for an extended period. Restrictions on COLAs also encounter opposition from people who fear that changes made to reduce budget deficits would undermine the entire structure of retirement income policy. For example, because private pension plans generally do not offer complete indexing, restricting Social Security COLAs would further reduce protection for beneficiaries against inflation. Some people also think that, because Social Security and other retirement programs represent long-term commitments to both current retirees and today's workers, the programs should be altered only gradually and then only for programmatic reasons. According to that view, any changes in benefits should be announced well in advance to allow people to adjust their long-range plans.

Unless restrictions on COLAs were accompanied by commensurate changes in determining initial benefits for new recipients, disparities in benefit levels would develop among different cohorts of retirees. That situation is particularly relevant for Social Security, in which benefits for newly eligible individuals are based on an indexed benefit formula and on indexed earnings histories. For example, if prices rose by 4 percent in a year and the wage index used to compute benefits for newly eligible recipients increased by 5 percent, the act of eliminating that year's COLA without changing the calculation of initial benefits would produce benefits for new beneficiaries that were about 5 percent higher than for recent retirees; under current law, benefits would be only about 1 percent higher for the new retirees. To alleviate that problem and to achieve additional savings, efforts to slow the growth in benefits through COLA limitations might be extended to the formulas for determining initial benefits (see ENT-32).

There are several options designed to restrict COLAs for current beneficiaries. Except for the option to limit COLAs to 0.5 percentage points less than the

increase in the CPI, the magnitude of the savings in each case--as well as the impact on beneficiaries--would be very sensitive to the level of inflation in the years in which the COLAs would be reduced. If prices were to rise faster than currently assumed, savings would be greater than shown, and recipients would bear larger costs. If prices were to rise less quickly, both budgetary savings and the effect on recipients would be smaller.

The following are specific versions of COLA restrictions:

Eliminate COLAs for One Year. One option would be to eliminate COLAs in 1998 for non-means-tested benefit programs and allow them to be paid in subsequent years, but with no provision for making up the lost adjustment. If that approach was taken, federal outlays would be reduced by about $9.1 billion in 1998 and $61.5 billion over five years, with Social Security and Railroad Retirement accounting for most of the total.

Limit COLAs to Two-Thirds of the CPI Increase for Five Years. Under this approach, recipients would be compensated for only a certain proportion of inflation, such as two-thirds of the annual CPI increase. Based on the current economic assumptions of the Congressional Budget Office, applying this restriction for five years would save about $3.2 billion next year and $63.4 billion over the 1998-2002 period. As a result, benefits for people who received payments throughout the five-year period would be about 5 percent less in 2002 than they would have been under full price indexing. Furthermore, this option would reduce the real income of beneficiaries at the same time that they were becoming less able to supplement their income by working.

Limit COLAs to the CPI Increase Minus 0.5 Percentage Points for Five Years. An approach similar to the proportionate COLA reduction would reduce the adjustment by a fixed number of percentage points; for example, set the adjustment at the CPI increase minus 0.5 percentage points. Unlike other options to restrict COLAs, however, both savings and effects on beneficiaries would be roughly the same regardless of the level of inflation--about $32.7 billion over the next five years, if extended for the full period.

Pay the Full COLA on Benefits Below a Certain Level and 50 Percent of the COLA on Benefits Exceeding That Level for Five Years. Another alternative would tie the COLA reductions to beneficiaries' payment levels, starting in 1999. The example discussed here--based only on Social Security and Railroad Retirement Tier I benefits--would award the full COLA for benefits based on the first $685 of a retiree's monthly primary insurance amount (PIA) and 50 percent of the COLA on benefits above that level. The $685 per month threshold is about equal to the projected 1999 poverty level for an elderly person and would be indexed to maintain its value over time.

This approach would save about $800 million in 1999 and $10.3 billion over the 1999-2002 period. Because of the time needed to carry out the proposal, those estimates assume that it would be in place by January 1999.

Because the full COLA would be paid to beneficiaries with low PIAs, this option would ensure that low-income recipients were not adversely affected. Moreover, its percentage impact would be greater for recipients with higher benefits. Nonetheless, benefit levels are not always good indicators of total income. Some families with high benefits have little other income, whereas some with low benefits have substantial income from other sources. Furthermore, many people object to any changes in retirement programs that might be construed as introducing a means test for benefits, even if the test is limited only to the COLA.

A variation would extend this approach to the other non-means-tested benefit programs besides Social Security; that variation is not shown in the table. Such an option would spread the effects among a wider group of recipients, although it might be somewhat more complicated to design because the different benefit structure in each program could require a separate determination of the appropriate benefit levels on which to pay reduced COLAs.

Eliminating COLAs for recipients whose benefits are based on PIAs above a certain level is another option. Because such a reduction would affect the entire benefit of each recipient above the threshold, not just the portion of the benefit above that level, both the savings and the impacts on beneficiaries would be consid-

erably greater. Unless adjustments were made at the threshold, however, recipients with benefits just below it could be made better off than those with benefits just above it. Still another approach that would address some of the administrative problems of those two options would involve increased taxation of Social Security benefits (see REV-15).

ENT-45 APPLY MEANS TESTS TO FEDERAL ENTITLEMENTS

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Make Entitlements Subject to Individual Income Tax						
Non-Means-Tested Entitlements	19,900	58,100	62,700	67,000	71,400	279,100
All Entitlements	22,700	67,700	73,100	78,400	83,800	325,700
Reduce Entitlements Provided to Middle- and High-Income Families						
Non-Means-Tested Entitlements	11,800	55,700	52,300	55,900	59,600	235,300
All Entitlements	11,800	58,500	55,300	59,100	63,100	247,800
Deny Entitlements to High-Income Recipients						
Non-Means-Tested Entitlements	4,900	12,000	11,100	11,700	12,500	52,200
All Entitlements	4,900	12,200	11,300	12,000	12,800	53,200

NOTE: Estimates do not include administrative costs or revenue losses from reductions in taxable benefits.

There are two basic approaches to constraining entitlement spending. One broad strategy would reduce the growth of spending (or tax the benefits at higher rates) on a program-by-program basis. New program rules or tax laws could limit who qualifies for benefits, reduce the amount of benefits provided, or change the taxation of benefits. (Examples of that kind of approach include ENT-33, ENT-36, ENT-45, REV-15, and REV-17.)

An alternative to the program-by-program approach would constrain entitlements as a group through some form of means-testing under which benefits were cut most for beneficiaries with the highest income. Three illustrations of that method are discussed here. The first approach would subject most entitlement benefits to federal individual income taxes, the second would reduce benefits as beneficiaries' income rose, and the third would deny benefits to individuals with income above specified thresholds. The savings attributed to those three approaches would be smaller than those shown here if the Congress enacted one or more of the program-by-program approaches described in other options.

Some federal entitlements are already subject to limits on income or wealth under program regulations. The federal part of Supplemental Security Income (SSI) is available only to elderly and disabled people with monthly income below federally specified national limits. Aid to Families with Dependent Children (AFDC) goes only to families with children who have a monthly income below limits set by individual states. Recipients of SSI and AFDC are automatically eligible for Medicaid, as are certain people with low family income. Only households with a monthly income below the federal poverty guidelines qualify for food stamps. Because those and other means-tested programs currently provide benefits only to people with low monthly income, subjecting them to any of the three methods of means-testing discussed here would duplicate the cur-

rent means-testing at significantly higher income levels, imposing administrative and compliance costs but having little effect on net saving. At the same time, because each of the alternative approaches would impose an annual means test--as opposed to the monthly tests now used in each program--beneficiaries who qualified for assistance for only part of a year could lose some or all of their benefits. Budgetary savings for each approach are shown both including and excluding those transfers that are already means-tested.

Non-means-tested entitlement programs included here are Social Security and Railroad Retirement, Medicare, unemployment compensation, and veterans' benefits. Since Social Security and Medicare account for the bulk of entitlements, the options discussed here largely affect the elderly. The analysis excludes two other major entitlement programs--federal civilian and military pensions--because they are part of the labor contract between the government and its employees and not transfers in the same sense that the included programs are. Several options to constrain spending on those two excluded programs are discussed in ENT-26.

Means-testing could be based on individual income, income of couples, or the income of a more broadly defined family. The unit used determines which recipients would be affected by the alternative approaches, as well as how recipients might respond to means-testing. Because families generally consume as a unit, family income and wealth are probably better measures of need than individual income and wealth. At the same time, depending on how the means tests are structured, basing the tests on families could induce families to split up into smaller units to minimize benefit reductions. For example, in the approach to benefit reduction discussed below, a retired couple in which each spouse had $20,000 of pension and investment income and $10,000 of Social Security would lose $3,000 of their Social Security benefits; if they divorced, they would keep all of their benefits. Appropriate differentiation of benefit reductions for individuals and families of different sizes could reduce or remove such incentives for family breakup.

A significant objection to global means-testing of entitlements is that different programs serve different purposes. Individual programs provide people with separate types of in-kind consumption, such as food, housing, and medical care. Society may wish to ensure fuller access to those goods and services rather than simply provide more cash income. In that view, any limit on benefits should be imposed on a program-by-program basis to allow the use of different criteria.

Reducing entitlements to medical assistance raises special concerns. One problem is valuing medical services in dollar terms. One approach would base value on benefits actually received. That approach could yield unacceptable results because it would assign the highest values to the sickest people receiving the most care. Another approach would count the federal subsidy to in-kind programs as benefits. In Medicare, for example, the subsidy would be the implicit value of an insurance premium paid for by the government.

Means-testing benefits also poses a transitional problem, particularly for retirees. Recipients of benefits may have made financial decisions and plans expecting particular incomes from entitlements. Changing those benefits could impose hardships. Phasing in taxation of benefits or means tests over time would mitigate that difficulty.

Make All Entitlements Subject to Individual Income Tax. Under current law, some benefits of federal entitlement programs, such as unemployment compensation and military pensions, are fully subject to individual income taxes; others, such as Social Security, are partially so; and still others, such as Medicare and food stamps, are entirely excluded from taxable income. One approach to means-testing all entitlements would include in taxable income all federal entitlement benefits in excess of contributions made for specific programs. Thus, for example, the insurance value of Medicare in excess of premiums paid for Supplementary Medical Insurance coverage would become part of a recipient's taxable income. Program administrators would tell recipients annually the net value of benefits to report as taxable income, using a form 1099-G similar to the forms used to report dividend and interest income. Such inclusion for all entitlements would increase revenues by about $23 billion in 1998 and about $325 billion from 1998 through 2002.

Taxing entitlements recognizes that they increase a recipient's ability to pay taxes in the same way that other forms of income do. Excluding some entitlement payments from taxable income simply because they come from the government could be viewed as violating

the principle that taxes should be related to ability to pay. A counterargument, however, asserts that entitlements are not taxable now simply because benefit levels are set to be net of taxes. If those levels are too high, the Congress should reduce them within each individual program. Making benefits taxable has the advantage of providing a straightforward annual measure of recipients' needs for federal assistance. Even so, it could be difficult to justify including noncash benefits received from the government but not those provided by employers. That last objection is not an issue, however, if taxing benefits is viewed as a means of allocating scarce government resources to the most needy recipients.

Reduce Benefits Provided to Middle- and High-Income Families. The Concord Coalition has proposed that federal entitlement benefits be reduced rapidly as income rises. Benefit reduction could be achieved either through supernormal tax rates imposed under the individual income tax or directly through new programmatic structures. Under the Concord Coalition's proposal, families with income above $40,000 would lose benefits under a graduated scale beginning at 10 percent for those with income between $40,000 and $50,000 and increasing by 10 percentage points for each $10,000 of income up to 85 percent of benefits above $120,000 of total income. Nontransfer income would be considered first in determining the rate of benefit reduction, and benefits would be reduced only to the extent that they caused total income to exceed $40,000. For example, a family receiving $15,000 of Social Security and $30,000 of nontransfer income would lose $500 of benefits--10 percent of the $5,000 by which total income exceeds $40,000. If the family had $45,000 of nontransfer income, it would lose $2,500 of its Social Security--10 percent of the $5,000 that falls in the $40,000 to $50,000 income range and 20 percent of the $10,000 that falls in the $50,000 to $60,000 income range. A family with nontransfer income above $120,000 would have its benefits reduced by 85 percent. (Under the coalition's plan, married couples and larger families would face the same income limits as single people, and all dollar values would be indexed for inflation.)

This option would reduce benefits for all entitlements by about $12 billion in 1998 and $250 billion from 1998 through 2002. Compared with the option that would tax benefits, this proposal to reduce benefits would have no effect on families with lower income and a greater effect on families with higher income.

This approach reflects the view that entitlements should go primarily to those most in need of them, not to families with higher income. Imposing the same criteria for establishing need among all entitlement programs might be the fairest way to limit benefit payments. A global approach to benefit reduction could also be less costly to administer than an approach that addresses each program individually, although whether it would in fact cost less depends in large part on whether new administrative apparatuses would have to be created.

A significant problem with this option is the disincentive for families to save and earn other income that is created by the rapid reduction in benefits as income rises. That effect would be mitigated somewhat, however, if the benefit reduction was phased in gradually over a wide income range. Recipients with income well above the $120,000 level at which benefit reduction was greatest would face smaller or no disincentives, since they would have to lower their income greatly to incur a smaller benefit reduction. They would instead have some incentive to earn more if they wished to maintain the same level of total income. An alternative to forgoing income to lessen benefit reductions would be to shift income to sources that would not be counted in the benefit reduction formula. For example, if interest on tax-exempt bonds was not counted, entitlement recipients would be expected to shift their investments into those bonds. Such behavior could be limited, however, by counting as many forms of income as possible in determining benefit reductions.

Deny Entitlements to High-Income Recipients. Some Members of Congress have proposed a third approach to means-testing entitlements that would deny completely any entitlement payments to recipients with income above specific limits. The budgetary savings shown assume limits of $100,000 for single recipients and $120,000 for married couples, with benefits phasing out over a $10,000 income range. This option would reduce spending on all entitlements by about $5 billion in 1998 and $53 billion over a five-year period. Compared with the proposal of the Concord Coalition to reduce benefits, this option would exempt middle-income families from benefit cuts and impose larger benefit reductions on families with the highest income.

This approach has many of the advantages of and problems faced by the alternative that would simply reduce benefits. Because benefits would be phased out over a narrow income band, however, the work and saving disincentives would be significantly greater for people with income near the cutoff level. Families with more than $10,000 in benefits and income in the phaseout range would face marginal tax rates of more than 100 percent from this provision alone. The narrower the band, the more likely potential recipients with an income in or just above the phaseout range would be to adjust the timing of their income receipts, forgo savings, or reduce work effort to stay under the income limit. At the same time, because beneficiaries with an income below the phaseout range would continue to receive full benefits, many fewer recipients would face work and saving disincentives than in the approach that would reduce benefits over a broad income range. Any reduction in work effort or savings would reduce the budgetary savings. Finally, this approach would also create incentives to shift income to sources excluded from the income calculation.

ENT-46 CHARGE FEDERAL EMPLOYEES COMMERCIAL RATES FOR PARKING

Savings from Current-Law Spending	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Budget Authority	110	115	120	120	125	590
Outlays	110	115	120	120	125	590

The federal government leases and owns more than 200,000 parking spaces, which it allocates to its employees--in most cases without charge. Requiring employees of the federal government to pay commercial rates for their parking could reduce the deficit by $590 million through 2002.

The vast majority of federal workers park without charge. For example, one survey of 10 agencies in Washington, D.C., found that 71 percent of federal workers who received parking from their agencies received it free of charge. Employees of the Congress also received free employer-provided parking. Federal workers who pay for parking are almost always charged less than the commercial rate, although federal agencies, with the approval of the General Services Administration, are allowed to charge their employees the higher commercial fees. Some Members of Congress support charging all federal employees parking fees set at commercial rates, an idea similar to a proposal made by President Carter. The Clinton Administration has also proposed greater incentives for agencies to charge higher rates for parking spaces.

Federal workers in the largest metropolitan areas would bear the brunt of the new charges. Those in the Washington, D.C., metropolitan area would be affected most, paying about 75 percent of the total charges. Federal employees in less commercially developed areas--where charging for parking is uncommon--would not face new fees. The estimated savings rely on information available about the number of federal parking spaces, commercial parking rates, and expected declines in the demand for parking by federal workers as a result of higher rates. Once commercial rates were instituted, however, it would be difficult to predict variations in parking rates, the number of spaces controlled by the federal government, and responses of federal workers.

In 1992, the Congress passed an energy policy law that contained a provision including as taxable income the commercial value of any parking provided free of charge by an employer--including the federal government--in excess of $155 per month (indexed for inflation beyond 1993). Paying for parking at commercial rates would reduce the gross income of such employees; however, the estimate of savings from this option does not include the reduction in tax revenues that would result, because available data do not allow an estimate of the option's effect on revenues. Analysts agree, however, that the offsetting reduction in revenues would be relatively small.

Proponents of charging commercial rates for employer-provided parking argue that subsidized parking increases the frequency with which workers drive to work, especially in single-occupancy vehicles. Those observers believe that higher prices for parking would decrease the flow of cars into urban areas by encouraging the use of public transportation or car pooling. In turn, they argue, a reduction in the number of cars would reduce energy consumption, air pollution, and congestion.

Some supporters of charging fees also maintain that the federal government would be acting as a model employer and could call more effectively on others to reduce pollution and energy consumption. In addition, charging commercial prices for parking would show more accurately the demand for parking by federal workers. At commercial rates, the supply of employer-

provided parking may well exceed demand, which could lead to alternative uses of current parking space. Moreover, commercial pricing would allocate spaces to those who valued them the most, thereby setting aside differences in income. Finally, some observers argue that the federal government can no longer afford to provide valuable goods and services free of charge to workers who can afford to pay for them.

Opponents of full-cost pricing for parking argue that it would unfairly penalize workers in urban areas who have difficulty obtaining access to alternative transportation or who drive to work for valid personal reasons. In the view of those critics, charging commercial rates for parking for federal workers effectively represents a cut in total compensation and is inappropriate, given other proposed reductions in federal employment and compensation. Some critics have also argued that free parking is a common form of compensation in the private sector. (However, in the Washington, D.C., metropolitan area, only 37 percent of parking spaces for private-sector workers were provided free of charge in 1991; 46 percent were priced at full commercial rates.) In addition, some people argue that the new charge will simply change the mix of federal employees using the parking spaces--higher-income employees will be favored over lower-income ones. Now, the allocation of parking spaces in many agencies is based on rank, seniority, or other factors; instituting fees for parking would ration spaces to employees who were willing to pay commercial rates.

If the funds collected from charging commercial rates for parking were used to finance other spending, the savings noted earlier in this option would be smaller or zero. The Administration, for example, has supported new incentives for agencies to charge higher rates for parking in order to subsidize the use of mass transit by their workers. That proposal would neither reduce nor enlarge the deficit because agencies would not rebate the fees to the Treasury but instead provide them to transit-using employees. The funds raised by this option would be counted as offsetting collections or offsetting receipts, depending on how the option was applied.

ENT-47 MAKE PERMANENT VARIOUS EXPIRING USER FEES INCLUDED IN THE OMNIBUS BUDGET RECONCILIATION ACTS OF 1990 AND 1993

Addition to Current-Law Receipts	Annual Added Receipts (Millions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Patent and Trademark Fees	0	119	119	119	119	476
Vessel Tonnage Charges	0	49	49	49	49	196
Rail Safety Fees	45	45	45	45	45	225

The Omnibus Budget Reconciliation Acts of 1990 and 1993 (OBRA-90 and OBRA-93) created user fees for a variety of services that the federal government provides to private parties. OBRA-90 enacted rail safety fees for 1991 through 1995. OBRA-93 levied fees on vessel tonnage and imposed patent and trademark fees that will expire in 1998. Extending those fees could raise $897 million in receipts for 1998 through 2002, providing offsetting receipts in the budget functions designated for commerce and transportation.

The general argument for user fees applies to each of the proposals included in this option; namely, that the recipients of government services should bear the cost of those that clearly benefit a specific group. Accordingly, patent and trademark fees are established to cover the cost of providing services to would-be holders of a patent or trademark. The vessel tonnage fee is collected on all vessels entering a U.S. port and helps support the general operations of the Coast Guard. The fees charged to railways offset the cost of the government's railway safety activity.

Antithetically, it can be argued that services provided by the government ultimately benefit the general populace and should be paid for by all taxpayers rather than a specific group. Those who advocate the repeal of specific fees argue that charges were unevenly applied among users or, directly or indirectly, inflicted undue costs on payers.

Chapter Five

Medicare and Medicaid: Deficit Reduction and Program Restructuring

Federal health care costs have escalated sharply over the past two decades, accounting for an increasing share of the budget. Medicare and Medicaid, which finance the health care of millions of Americans, are among the largest entitlement programs; only Social Security is larger. In 1997, federal spending on Medicare and Medicaid is expected to exceed $300 billion.

The growth in federal spending for Medicare and Medicaid has slowed recently, but there is no indication of any significant change in the factors driving spending in the two programs. In Medicare, efforts to slow the growth in payments to some providers have had a degree of success. But those efforts have also created incentives to channel patients into alternative settings that are paid on a less restrictive basis. In Medicaid, some of the recent slowdown reflects states' responses to proposals to reform that program and may be temporary. Moreover, despite lower short-term projections of enrollment, inflation, and use of services, pressures for higher spending are likely to reemerge over the next few years.

Federal health spending is projected over the long term to rise faster than the growth in the nation's ability to pay for those services. By 2003, federal spending on the two health care entitlements is projected to top Social Security spending. The outlook beyond 2010 is considerably bleaker because of strong demographic pressures arising with the aging of the baby-boom generation.

The United States is currently in a period of historically low growth in Medicare enrollment as the baby-bust generation, born during the Depression and war years of the 1930s and 1940s, reaches age 65. Only after 2010, when the first wave of the baby-boom generation reaches 65, will Medicare enrollment begin a period of exceptionally swift growth lasting two decades. Demand for services under Medicare will increase dramatically during that time, as succeeding baby-boom cohorts continue to enter the program through 2030. In addition, the number of low-income elderly people eligible for Medicaid, already growing considerably faster than the elderly population overall, will also swell. The demand for long-term care services covered by Medicaid is likely to mount substantially thereafter.

We are thus in the calm before the storm. Pressure for budget stringency in Medicare is much lower than it was last year. Many people have pointed to the slowdown in Medicaid spending to argue against any significant policy changes for the 1998 budget. But this fiscal pause obscures the fact that both programs must prepare--in a relatively short amount of time--for the unprecedented demands of the baby-boom generation. Policies put into place over the next several years could provide the deficit reduction necessary in the short

term and start the restructuring essential for the programs over the longer term.

The discussion of Medicare in these pages departs from the format used in earlier chapters. For example, instead of pinpointing individual policies and their associated savings estimates as stand-alone options, this chapter develops integrated packages of Medicare options that could achieve total savings of $100 billion and $150 billion over the next five years. That approach highlights the trade-offs and interactions that policymakers must consider when folding detailed policies into a comprehensive Medicare proposal.

The discussion of Medicaid also takes a broad perspective on containing federal costs, reflecting the nature of policy debate over the past several years. Rather than consider narrow options that might explicitly alter eligibility, coverage, or specific spending rules in Medicaid, this chapter addresses two policies--block grants and per capita caps--that would change the present fiscal relationship between federal and state governments. Other policies--reductions in disproportionate share payments and reductions in federal matching rates--would not change that relationship but could yield federal savings.

I. Medicare

Medicare consists of two related programs: Hospital Insurance (HI), or Part A, which covers certain costs of hospital stays and post-acute care services; and Supplementary Medical Insurance (SMI), or Part B, which primarily pays for the services of physicians and other providers of outpatient health care. Over the past decade, Medicare spending has grown more quickly than every other major federal spending program except Medicaid. In 1997, Medicare will provide over $200 billion in benefits to 38 million elderly and disabled people.

Under current law, the Congressional Budget Office (CBO) projects that Medicare spending will soar to nearly $470 billion by 2007 (see Table 5-1). That growth represents an average annual rate of increase of 8.3 percent over the next decade, compared with the projected 4.7 percent growth in the economy over the same period.

The two programs receive their funding from different sources. HI benefits are financed primarily from payroll taxes paid by current workers and their employ-

Table 5-1.
Projections of Medicare Outlays (By selected fiscal year)

	Outlays (Billions of dollars)			Average Annual Rate of Growth, 1997-2007 (Percent)
	1997	2002	2007	
Hospital Insurance	137	202	290	7.7
Supplementary Medical Insurance	75	116	179	9.1
Gross outlays	212	317	469	8.3
Premium Receipts	-20	-26	-32	4.8
Net outlays	192	292	436	8.6

SOURCE: Congressional Budget Office.

ers. SMI benefits are financed primarily from general revenues, with beneficiaries paying a premium to cover some of the costs. SMI premiums are set in statute at 25 percent of SMI costs through 1998 and are currently $43.80 a month.

Beneficiaries usually incur health care expenses in addition to their SMI premium. Both HI and SMI require cost sharing in the form of deductibles and coinsurance. In addition, many beneficiaries face costs for services that Medicare does not cover, such as prescription drugs, physical examinations, hearing aids, dental care, and custodial care.

Most beneficiaries have a choice of traditional fee-for-service Medicare or health plans that are paid a fixed amount per enrollee, referred to as risk-based plans. Traditional fee-for-service Medicare pays separately for each specific service provided to beneficiaries. As a result, providers have a financial incentive to increase the use of services. Beneficiaries in turn have little financial reason to refuse services that may be of

Table 5-2.
Projections of Medicare Benefits by Type of Service (By selected fiscal year)

	Outlays (Billions of dollars)			Average Annual Rate of Growth, 1997-2007 (Percent)
	1997	2002	2007	
Fee-for-Service				
Hospital Insurance				
Inpatient hospital	87	105	125	3.7
Skilled nursing facility	13	19	27	7.6
Home health	19	30	43	8.6
Hospice	2	3	4	5.7
Subtotal	121	156	198	5.1
Supplementary Medical Insurance				
Physician[a]	31	35	39	2.5
Outpatient hospital and other services[b]	18	27	38	7.8
Laboratory services, durable medical equipment, and other services[c]	13	21	34	10.0
Subtotal	62	83	111	6.1
All Fee-for-Service Benefits	182	239	310	5.4
Health Maintenance Organizations	26	73	153	19.6
All Medicare Benefits	208	312	463	8.3

SOURCE: Congressional Budget Office.

a. Includes payments by carriers to physicians and nonphysicians under the physician fee schedule.

b. Includes outpatient hospital services, laboratory services in hospital outpatient departments, hospital-provided ambulance services, and other services paid by intermediaries.

c. Includes independent and physician in-office laboratory services, durable medical equipment, ambulance services paid by carriers, and other services paid by carriers.

some value, since they pay only a fraction of the cost of those services.

Moreover, most beneficiaries in the fee-for-service sector have some form of supplemental insurance that covers Medicare's cost-sharing requirements, making those requirements largely ineffective in discouraging the use of services. That supplemental insurance could be private ("medigap") coverage, employer-sponsored coverage for retirees, or Medicaid (for low-income beneficiaries).

In contrast, risk-based plans, primarily health maintenance organizations (HMOs) under current law, agree to provide Medicare-covered services to each enrollee for a fixed monthly payment. A plan paid on that basis is "at risk," since it is responsible for the full costs of care for its enrollees and thus has an incentive to provide that care in an efficient manner. Risk-based HMOs typically cover all or part of Medicare's cost-sharing requirements and may provide additional services as well.

CBO projects that the number of Medicare beneficiaries enrolled in risk-based plans will rise from 12 percent in 1997 to 34 percent by 2007 under current law. Because of that shift, enrollment in the traditional fee-for-service sector is projected to decline by 5 million people over the next 10 years. Even so, Medicare's payments to fee-for-service providers of home health care, skilled nursing care, and outpatient hospital services are still projected to grow about 8 percent to 9 percent a year--almost twice as fast as the economy (see Table 5-2).

Competing Goals

The rapid increase in Medicare spending projected over the next 10 years continues a pattern of growth that has long outpaced the growth of both the overall federal budget and the economy (see Table 5-3). Slowing that acceleration in Medicare spending has consequently been a long-standing focus of policy, and it is generally recognized that substantial Medicare savings would be required to achieve a balanced budget in 2002. Achieving budgetary balance may not, however, resolve the impending depletion of Medicare's HI trust fund.

Delaying Depletion of the HI Trust Fund

Revenues for the HI trust fund come from a 2.9 percent payroll tax on all wage and salary income, plus a small amount from income taxes levied on the Social Security benefits of upper-income recipients and from other sources. Since those revenues are limited, the trust fund can become depleted if outlays exceed income over a period of time. The Medicare trustees have

Table 5-3.
Medicare Spending Compared with Total Federal Outlays and the Economy (By selected fiscal year)

	Outlays (Billions of dollars)				Average Annual Rate of Growth (Percent)		
	1980	1990	1997	2007	1980-1990	1990-1997	1997-2007
Medicare Mandatory Outlays[a]	34	107	209	464	12.2	10.0	8.3
Total Federal Outlays	591	1,253	1,632	2,611	7.8	3.8	4.8
Gross Domestic Product	2,719	5,683	7,829	12,379	7.7	4.7	4.7

SOURCE: Congressional Budget Office.

a. Includes benefits plus mandatory outlays for administration.

Table 5-4.
Medicare Enrollment and Workers per Enrollee (By selected calendar year)

	1975	1985	1995	2005	2010	2030
Enrollment (Millions)	24.2	30.2	37.1	42.5	46.7	75.1
Workers per Enrollee	4.1	4.0	3.8	3.6	3.4	2.2
Average Annual Rate of Growth in Enrollment from Preceding Year Shown (Percent)		2.2	2.1	1.4	1.9	2.4

SOURCE: Congressional Budget Office and Medicare Board of Trustees (using the intermediate assumptions).

voiced concerns about the solvency of the HI trust fund for some years, and the fund fell into deficit in 1995. According to CBO projections and those of the trustees, the HI trust fund will be depleted in 2001 under current law.[1]

In contrast, the SMI trust fund receives income from premiums paid by beneficiaries and from general revenues. Since general revenue financing is uncapped, the SMI trust fund cannot be depleted, and it generally carries a small surplus. Because SMI outlays are likely to continue growing faster than premiums or general revenues, however, SMI is no more financially sound than HI.

Depletion of the HI trust fund could be delayed through policies that would also contribute to the overall goal of deficit reduction. Such policies would either reduce the growth in spending for Medicare-covered services or increase federal revenues, a part of which could be earmarked for the HI trust fund. Reducing payments to hospitals, skilled nursing facilities (SNFs), home health agencies, and other providers of HI services, for example, would reduce federal spending, as would requiring beneficiaries to pay a larger share of the costs for HI services. Raising the HI payroll tax would also contribute to the solvency of the trust fund and add to the overall level of federal revenues.

Other policies could delay depletion of the trust fund without reducing the federal budget deficit. Shifting services out of HI, as proposed recently for certain home health services, is one such policy. Depletion of the trust fund could be avoided indefinitely by transferring general revenues to it as necessary, as is now done for the SMI trust fund. Unless sources of additional funds were identified, however, such an approach would do nothing to shrink the deficit.

Restructuring Medicare

Recent concerns about the financing of Medicare, including the impending depletion of the HI trust fund, reflect the continuing rise of Medicare spending per beneficiary rather than exceptional growth in the number of beneficiaries. Indeed, that population is now growing at a historically slow rate (see Table 5-4). The relatively small cohort of Depression-era babies retiring over the next decade, coupled with the large number of baby boomers who are in their prime earning years, provides very favorable circumstances for financing Medicare and, in particular, the HI trust fund.

Enrollment in Medicare will, however, increase dramatically as the baby boomers reach age 65. Between 2010 and 2030, enrollment is projected to grow by 2.4 percent a year, up from the 1.4 percent average annual

1. Medicare Board of Trustees, *1996 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund* (June 1996). The board projects a depletion date of 2001 under both its intermediate- and high-cost assumptions. Even under its low-cost assumption, the board projects a depletion date of 2002.

Box 5-1.
Medicare as a Defined Contribution Plan

Policy options for Medicare that might be implemented in the near term would retain both a traditional fee-for-service sector and risk-based plans. Consequently, the traditional fee-for-service sector, with its open-ended claim on federal payments, would continue to drive the growth of Medicare spending. A more ambitious option would provide a fixed payment for every beneficiary--in effect, converting the entire Medicare program to a defined contribution plan.

Under that option, beneficiaries could enroll in any health plan, including fee-for-service plans, with Medicare's contribution set at a fixed amount per beneficiary. Beneficiaries who chose lower-cost plans might pay no more than they do now, but each beneficiary would be liable for the full additional cost of selecting a plan that cost more than Medicare's payment. Those enrolling in fee-for-service plans might be required to pay such a surcharge under a defined contribution program.

A defined contribution plan that eliminated the special status of Medicare's fee-for-service sector would be practical only if beneficiaries had more than one plan from which to choose. Oversight might be needed to ensure that each health plan met an acceptable level of quality and services. But the federal government's experience in running a successful health insurance program for its employees based on the principles of a defined contribution plan could be useful in establishing the mechanics of such a system for Medicare.

Whether a defined contribution option can slow the growth of Medicare spending to sustainable long-term rates and provide adequate health coverage for a growing number of beneficiaries depends on how well competition among health plans fosters efficiency. A restructuring of the program that is poorly designed could fail to meet those policy goals. Nonetheless, a market-based strategy may be the most promising approach to resolving the problem of financing Medicare in the long term.

growth projected through 2007. By 2030, Medicare enrollment will have doubled, to 75 million people.

The increase in Medicare enrollment caused by the aging of the population will be accompanied by a tapering of the growth rate of the working-age population. The number of workers will drop from 3.8 for every Medicare beneficiary in 1997 to 2.2 per beneficiary by 2030. Consequently, demographic trends will drive up the demand for Medicare services after 2010, at the same time that the workforce that provides the bulk of Medicare's financing will be growing relatively slowly.

In contrast to those demographic trends, Medicare spending per beneficiary has risen rapidly in recent years, and that pattern is expected to continue. Between 1997 and 2007, for example, CBO projects that Medicare spending per beneficiary will increase 6.8 percent a year under current law.

It is difficult to project growth in Medicare spending per beneficiary over the long term. The Medicare trustees assume that the growth in that spending will gradually slow between 2005 and 2020 and be more in line with growth in national income per capita. Even under that assumption, however, CBO projects that federal spending on Medicare will overtake spending on Social Security within 30 years.[2]

Recent proposals would pursue a market-based strategy to slow the long-term growth of Medicare spending. Such a strategy could lead ultimately to a more competitive Medicare market, with health plans competing for enrollees on the basis of lower costs and higher quality of care. But to achieve that result, beneficiaries would need incentives to choose lower-cost plans, and the growth in Medicare's contributions to premiums would have to be limited. Having Medicare make a fixed payment on behalf of each beneficiary that was no greater than the price of a low-cost plan, as in a defined contribution plan, would produce such incentives. Beneficiaries choosing to enroll in more expen-

2. See Congressional Budget Office, *Long-Term Budgetary Pressures and Policy Options* (forthcoming).

sive plans would have to pay the difference themselves (see Box 5-1).

Establishing a more competitive market for Medicare would require substantial redesign of the program. New methods would be needed to determine the federal payment to health plans, since that payment would no longer depend on the amount of services provided to each enrollee. Payments would have to be adjusted both to ensure that health plans had a financial incentive to enroll people who were less healthy and to avoid overpaying plans that attracted a mix of patients that was less costly than average. Provisions might also be necessary to ensure that patients would not be denied appropriate services. To minimize disruptions in the existing relationships between beneficiaries and their providers, a defined contribution plan could be phased in by requiring only new Medicare enrollees to participate each year and allowing older beneficiaries to shift voluntarily to the new system.

Although a complete restructuring of Medicare could require years of development, practical steps to begin that process could be adopted now. Policy options that foster program restructuring and cost containment could also contribute to the short-term goals of reducing the deficit and improving the solvency of the HI trust fund.

Options to Contain Medicare Costs in the Near Term

Policy goals for the near term--meeting deficit reduction targets for Medicare over the next five years and delaying depletion of the HI trust fund for several years beyond 2001--could be met in a variety of ways (see Box 5-2). Some options would limit program spending by reducing the growth of payments to providers, for example, or by increasing the costs imposed on beneficiaries. Some of those options would also provide a basis for the fundamental restructuring of the program that would prepare Medicare to meet unprecedented demands for health care when the baby-boom generation reaches age 65.

Constrain Costs in Fee-for-Service Medicare

Efforts to constrain costs in Medicare's fee-for-service sector have traditionally focused on limiting growth in the prices of services. Policies that limit prices do not change the incentive for providers to offer more services, however, and may not effectively curb the growth in expenditures, which represent price times volume of services. Introducing payment systems that limit spending, rather than prices, could be a more effective strategy for the long term.

Lower Annual Updates to Existing Payment Systems. The Health Care Financing Administration periodically adjusts Medicare's fee-for-service payments to reflect inflation or cost increases as required by statute. But the Congress has frequently enacted policies that adjust payment rates by less than the increases in the relevant indexes of inflation. Lowering the annual updates is easy to do, but that approach accepts the sometimes perverse incentives that existing payment systems have created.

Not all of the savings that could be gained by slowing the growth of those annual updates would be realized. Providers would be able to offset part of their potential loss in Medicare receipts by increasing the volume of services they provide to beneficiaries or by providing more services of a complex nature that earn higher Medicare payments. Such a response to the policy could offset as much as half of the potential savings from lowering the update.

Furthermore, if payment rates were too tightly limited, beneficiaries could encounter difficulties getting care from some providers or might not be able to obtain certain services. Yet even a sizable cut in payment updates might not lead to such problems if private insurers were also trimming rate increases. In that case, providers would not have better-paying alternatives to Medicare and would be unlikely to turn away Medicare business.

Institute New Payment Methods. Alternative payment methods may provide explicit incentives within a fee-for-service environment to control the volume and

complexity of services--the prospective payment system (PPS) for inpatient hospital services being the preeminent example. That system pays a fixed amount for treatment delivered during an episode of care (defined as all services furnished during an inpatient stay) rather than for each service individually.

Prospective payment systems could be expanded to other services, such as those delivered through hospital outpatient departments, skilled nursing facilities, and home health agencies. But developing such payment systems could be a lengthy and difficult process. Cost savings would depend on how the systems were designed. For example, more savings would be likely if episodes for which payment was made were defined broadly, to encompass more fully the care needed to treat the patient's illness. A broad definition would limit the provider's opportunity to shift necessary services outside the defined episode and then be paid on an individual fee-for-service basis.

There are several general approaches that could spur greater efficiency in the fee-for-service sector. An approach that has been successfully used to limit the growth of payments to physicians is to impose so-called volume performance standards. Those standards estab-

Box 5-2.
Options to Reduce Growth in Medicare Spending

A variety of specific policy options could reduce the growth of Medicare spending over the 1998-2002 period and beyond. Those options would constrain costs in fee-for-service Medicare, increase the amount beneficiaries pay for their own care, or increase savings from risk-based plans. The following policy options, discussed in more detail in subsequent sections of the chapter, could be included in a comprehensive Medicare proposal.

Constrain Costs in Fee-for-Service Medicare

Options to slow the growth of fee-for-service spending would set payment rates based on current payment methods or establish new payment methods that could spur greater efficiency in the fee-for-service sector. Specific options include:

- Lowering annual updates for payments;
- Instituting new payment methods, such as prospective payment, volume performance standards, bundling, and competitive bidding.

Increase the Financial Responsibility of Beneficiaries

Medicare spending could also be reduced by imposing more costs on beneficiaries. Specific options include:

- Raising premiums through an across-the-board increase or by tying premiums to income;
- Increasing cost sharing by using deductibles and copayments;
- Restructuring supplemental insurance.

Increase Savings from Risk-Based Plans

The current method of paying risk-based plans could be altered to increase Medicare's savings. Specific options include:

- Lowering payment rates to below 95 percent of the fee-for-service rate;
- Instituting new payment methods, such as breaking the link with costs in the fee-for-service sector or using competitive bidding.

Potential savings from improved payment methods could be enhanced by taking steps to increase enrollment in risk-based plans. Specific options include:

- Lowering fee-for-service spending;
- Expanding the range of eligible plans;
- Overhauling enrollment procedures;
- Permitting cash rebates;
- Reducing disparities in Medicare payments to plans in different localities.

lish an acceptable rate of growth of Medicare payments for particular services. If the growth in payments for specific services exceeded the standard, the following year's payment update would be lowered.

Broadening the scope of payment so that a single payment accounts for a number of related services would also improve incentives for fee-for-service providers. Bundling the payment for post-acute care services, such as those provided by a skilled nursing facility and home health agency following an inpatient stay, into the hospital PPS would reduce the hospital's incentive to discharge patients too quickly into post-acute care. An alternative to broadening payment definitions would be to shift from administered pricing for services to more market-oriented methods. Medicare could take advantage of its buying power to establish lower payment rates through competitive bidding, for example, or by negotiating services with provider groups. But substantial development would be required before Medicare could adopt either bundled payments or market-based pricing methods.

Increase the Financial Responsibility of Beneficiaries

Imposing additional program costs on beneficiaries through higher cost-sharing requirements and premiums would produce program savings. In principle, increasing what beneficiaries must pay when they receive health services provides an incentive to limit their use of those services, whereas raising premiums does not. But widespread private and public supplemental coverage has dampened those incentives. Restructuring the supplemental insurance market could restore the responsiveness of beneficiaries to costs in fee-for-service Medicare.

Raise Premiums. SMI premiums are set in statute at 25 percent of SMI costs but only through 1998. After that, growth in premiums is limited to the rate of increase of Social Security cash benefits. As a result, SMI premium income is projected under current law to decline significantly as a percentage of SMI costs. Increasing the premium as a percentage of costs would clearly generate program savings. Even freezing the premium at its current share of costs would provide some future savings.

A premium increase could be carried out in several ways. The simplest would uniformly raise the SMI premium for all beneficiaries. Beneficiaries who are eligible for Medicaid would be protected from such an increase under current law.[3] Both state and federal governments would share the additional Medicaid costs for those people. But such an approach could impose financial hardship on some low-income beneficiaries who are not also eligible for Medicaid.

Premiums could instead be set to increase with the income of beneficiaries, rising to equal the full cost of SMI for upper-income beneficiaries. The potential for savings from an income-related premium is limited, however, since most beneficiaries have modest income. Large savings could be obtained only by setting the income thresholds for additional premiums at low levels.

Increase Cost Sharing. Medicare has a complex structure of deductible and coinsurance requirements that vary by type of service. For example, the inpatient deductible is $756 in 1997, and hospital stays of more than 60 days require a substantial copayment. Care in SNFs is subject to copayments of $94.50 a day after the first 20 days. Most services covered by SMI are subject to a $100 deductible, after which the patient is responsible for 20 percent of covered expenses (as well as any additional amount that the physician is allowed to charge). Home health care, in contrast, is not subject to any cost-sharing requirement.

Simply raising Medicare's cost-sharing requirements, however, would retain this complicated structure. Cost sharing could be extended to home health services, for example, or the SMI deductible could be raised to a level similar to deductibles under most employer-sponsored health plans. Any increase in cost sharing for HI services would contribute to the solvency of the HI trust fund, but such increases for hospital or SNF care might be unreasonable.

3. All Medicare beneficiaries with income of less than 120 percent of poverty are now eligible to have Medicaid pay their Supplementary Medical Insurance premium. All of those with income of less than 100 percent of poverty are eligible for coverage of Medicare's cost-sharing requirements as well, and some are eligible for additional Medicaid benefits.

Simplifying Medicare's cost sharing would provide an opportunity to increase those requirements while shifting some of the financial burden away from patients needing the most care. The cost-sharing requirements for inpatient hospital services have been widely criticized for the potentially heavy burden they place on that group of patients, but the modest SMI deductible, which most beneficiaries pay regardless of their health status, could be raised. Private health plans generally have a single annual deductible and uniform coinsurance for services rendered by hospitals, physicians, and other providers. Medicare could streamline its cost-sharing requirements in a similar way. As with premium increases, some of the savings from higher cost sharing would be offset by increased Medicaid outlays.

Restructure Supplemental Insurance. Almost three-quarters of beneficiaries in fee-for-service Medicare have supplemental coverage through private medigap insurance, health plans for retirees, or Medicaid. That coverage typically pays for Medicare's cost-sharing requirements, reducing the incentives for beneficiaries to curb their use of services. Medigap premiums would, however, increase to reflect any additional cost sharing. Greater cost sharing could persuade some beneficiaries to enroll in risk-based managed care plans to avoid higher out-of-pocket costs in the fee-for-service sector.

Nonetheless, without a major change in the supplemental insurance market, greater cost-sharing requirements would be unlikely to induce most beneficiaries to use fewer services. One approach would prohibit supplemental policies from covering Medicare cost sharing. That option would, however, be extremely unpopular with most beneficiaries, who are averse to the risk of unexpected health costs.

Other approaches could be implemented as part of a broader reform of Medicare. For example, if Medicare was organized into a system of competing health plans, those plans could be allowed to offer supplemental coverage only to their own enrollees. In that way, the costs of increased use of services that might result from the additional coverage would be confined to the plan itself, just as risk-based HMOs currently accept the financial consequences of any additional benefits they offer their enrollees.

Increase Savings from Risk-Based Plans

The strong growth in enrollment in risk-based plans that CBO projects over the next decade is driven by two factors. First, an increasing proportion of people becoming eligible for Medicare at age 65 will already be HMO members, making Medicare's HMO sector more familiar. Second, Medicare HMOs will become relatively more attractive to beneficiaries as the cost of medigap coverage in the fee-for-service sector continues to rise.

The shift in enrollment toward risk-based HMOs would not slow Medicare spending unless improvements were made in the payment method so that the program could retain some of the savings that managed care plans would generate. Greater program savings could, however, reduce the attractiveness of HMOs to beneficiaries because HMOs would be less likely to offer the array of additional benefits that most of them currently offer. Some plans might be discouraged from participating in the risk-based Medicare sector at all. Consequently, options that could encourage enrollment in risk-based plans, even as those plans became less generous, should be considered.

Set Payment Rates. Medicare pays a fixed amount for each enrollee in risk-based HMOs equal to 95 percent of fee-for-service costs in each local area, adjusted for demographic and other characteristics of the plans' enrollees. Plans that are paid a fixed amount per beneficiary have an incentive to enroll relatively healthy beneficiaries, who use fewer services on average. Because Medicare's current payment formula does not fully account for that "favorable selection" of enrollees, the federal government pays a little more for typical enrollees in risk-based plans than those enrollees would have cost in the fee-for-service sector (see Box 5-3).

Even if adjustments for favorable selection remained crude, payment levels could be set to lower overall Medicare spending. Doing so, however, could erode the incentives for both health plans and beneficiaries to participate in Medicare's risk-based program.

The simplest alternative would change Medicare's payment rate from 95 percent of fee-for-service costs to some lower percentage. That option might yield savings but would do nothing to correct for any favorable selection in the program. Moreover, the growth of spending in the risk-based program would still continue to be tied to costs in the fee-for-service sector.

Breaking the link between costs in the fee-for-service sector and payments to risk-based plans would prune some of the inflation built into the current payment system and produce program savings. One option would be to set the rate of growth of risk-based payments equal to an external factor, such as the growth rate of the overall economy. Such an indexing method would allow spending in the risk-based program to grow only as quickly as the country's overall ability to pay for it. Total Medicare spending would continue to grow faster than the economy, however, unless additional steps were taken to limit spending in the traditional fee-for-service sector.

Box 5-3.
Adjusting Payments for Favorable Selection

Medicare's current payment system for risk-based managed care plans is, by design, unrelated to the plans' cost of doing business. Instead, payment rates are tied to the cost of providing services in the fee-for-service sector, adjusted for the enrollee's age, sex, disability status, institutional status, Medicaid eligibility, and work status.

Those adjustments for health risk are crude, however, and do not completely account for variations in the cost of providing health care to people within the categories of payment. Risk-based plans have an incentive to market selectively to relatively healthy enrollees within each payment category, although the extent to which they actually do so is debatable. Moreover, relatively healthy beneficiaries may be more likely to enroll in such plans, since they typically do not have strong ties to a fee-for-service provider. Because the current payment formula does not adjust adequately for that favorable selection, Medicare does not share in the savings from more efficient managed care plans.

Forging better methods for adjusting payments to reflect the health status of enrollees and their use of services could improve Medicare's ability to realize program savings from managed care plans. Developing risk-adjustment methods is technically complex, however. Indeed, the past decade of research has failed to identify substantial improvements in those methods.

Arbitrarily limiting the growth rate of payments to risk-based plans could lead to inefficiency, with some plans being compensated too generously and other plans too poorly (and ultimately dropping out of Medicare's risk-based sector). To avoid such problems, Medicare could adopt competitive bidding and other alternatives to administered pricing that would tie payment rates more directly to market conditions. But bidding would work only in areas having a number of Medicare risk-based plans. Moreover, although research on alternative pricing methods has been undertaken, Medicare as yet has no operating experience with such methods.

Encourage Enrollment. Reducing the growth of payments to risk-based plans could lead to savings for Medicare. But that reduction would probably make the Medicare program less attractive for such plans and reduce the attractiveness to beneficiaries in the risk-based HMOs that chose to remain in Medicare. The profit margins of the plans would be squeezed, and their ability to offer benefits beyond the basic Medicare package would be reduced.

The savings from reducing Medicare payments to risk-based plans depend on how enrollment might be affected. Options that could make the risk-based program more attractive to health plans and beneficiaries include:

o *Establishing policies to lower fee-for-service spending in Medicare.* That action would reduce payments to providers or increase costs to beneficiaries in fee-for-service Medicare. If payments to risk-based plans were not linked to costs in the fee-for-service sector, such an approach would increase the attractiveness of risk-based payment. Providers, and in particular physicians, might respond by shifting their practices to risk-based plans. Beneficiaries might then follow their physicians to the new plans, especially if they also faced higher out-of-pocket costs in the fee-for-service sector.

- *Expanding the array of risk-based plans to include a range of managed care and private fee-for-service options.* Beneficiaries would be better able to find plans meeting their preferences if the range of options was expanded, although doing so would also increase the possibilities for favorable selection. Offering a wider variety of plans could, moreover, raise a variety of regulatory issues, such as solvency requirements for new types of health plans, standards for quality of care, and antitrust considerations. The Health Care Financing Administration is conducting demonstration projects to explore the implications of expanding the range of risk-based plans.

- *Overhauling Medicare's enrollment procedures.* Although beneficiaries are given a list of risk-based plans operating in their local area, they may have difficulty choosing among them because no single source of information compares the features of the plans. Moreover, most beneficiaries are automatically enrolled in fee-for-service Medicare on first gaining eligibility; only later can they enroll in a risk-based plan. Only new enrollees who are already in a Medicare-certified plan may continue in that plan in a seamless fashion. One option would be to institute a coordinated open-enrollment process similar to that of the Federal Employees Health Benefits program, with beneficiaries selecting from all health plans operating in their area. Beneficiaries would receive information on all plans regarding costs, access to providers, additional benefits that might be available, and other factors.

- *Allowing risk-based plans to offer beneficiaries cash rebates as well as extra benefits.* Risk-based plans now compete only on the basis of coverage and quality of services. Plans could also compete for enrollment on the basis of price under this option. Plans would be less likely, however, to offer cash rebates or extra benefits if payment rates were limited.

- *Reducing the wide disparities in Medicare payments to risk-based plans in different localities.* Plans in areas having below-average payment levels could, for example, be given higher annual payment updates, which could encourage more plans in those areas to participate in Medicare. If plans in high-payment areas receiving smaller-than-expected updates reduced the generosity of their coverage, however, those plans could lose enrollment.

Illustrative Budget Packages

Medicare options can be combined in numerous ways to form an integrated budget package. Packages offering a particular level of savings over the next five years can be more or less successful in achieving longer-term goals, including delaying the depletion of the HI trust fund. That success depends on the specific combination of options that would reduce payments to providers, increase beneficiaries' costs, increase program revenues, or more fundamentally restructure Medicare.

The following discussion covers how policy options might be combined to meet two alternative savings targets: $100 billion and $150 billion in Medicare savings between 1998 and 2002. To provide some insight into the effects of each of the budget packages over a longer time period, savings and trust fund balances are also projected through 2007, assuming that the specified policies remain in effect for 10 years.

The budget packages are illustrative and do not include all of the specific policies that might be part of a full budget proposal. For example, the fee-for-service options presented below would reduce payment updates. More complex policies that would introduce prospective payment or bundling methods or otherwise alter the way Medicare covers services are not specifically discussed. This simplified presentation focuses on the overall impact of policies on providers and beneficiaries and does not imply a judgment about the appropriateness of any specific option.

Reduced payments for benefits in the fee-for-service sector account for most of the savings from the illustrative budget packages, reflecting the high proportion of Medicare spending on those benefits over the next five to 10 years. Benefits in the fee-for-service sector account for over 80 percent of the projected $1.2 trillion cumulative outlays net of premiums for Medicare benefits between 1998 and 2002 (see Table 5-5). Even if aggressive policies were adopted to increase savings from and enrollment in risk-based plans, the fee-for-service sector would probably continue to domi-

nate the Medicare program in the near term unless a more thorough restructuring was undertaken.

Five-Year Savings Target: $100 Billion

The illustrative policy package that would produce savings of $100 billion over the next five years includes options that would lower payment updates in the fee-for-service sector, break the link between fee-for-service costs and payments to risk-based plans, and freeze SMI premiums at 25 percent of SMI costs. That policy package would save a total of $99 billion between 1998 and 2002, and $448.6 billion through 2007 (see Table 5-6).

Savings from Fee-for-Service. Most of the savings over the next five years in the first budget package would come from lowering the growth of payments to fee-for-service providers--$67.6 billion between 1998 and 2002. Over 10 years, however, enrollment in that sector would decline, and the resulting savings would

Table 5-5.
Budgetary Impact of Illustrative Medicare Packages, 1998-2002 (In billions of dollars)

	Five-Year Cumulative Total	
	$100 Billion Package	$150 Billion Package
	Current Law	
Fee-for-Service Benefits	1,077.1	1,077.1
HMO Payments[a]	264.4	264.4
Total Premium Receipts[b]	-117.4	-117.4
Total	1,224.1	1,224.1
	Changes in Outlays	
Fee-for-Service Reductions	-67.6	-89.8
Risk-Based Plan Savings	-26.1	-32.9
SMI Premium Increases[c]	-5.3	-28.9
Total	-99.0	-151.6
	Post-Policy	
Fee-for-Service Benefits	1,009.5	987.3
HMO Payments[a]	238.3	231.6
Total Premium Receipts[b]	-122.7	-146.3
Total	1,125.1	1,072.6

SOURCE: Congressional Budget Office.

NOTE: HMO = health maintenance organization; SMI = Supplementary Medical Insurance.

a. Includes health plans paid on a risk basis and plans paid on a cost-reimbursement basis.

b. Includes Hospital Insurance and SMI premiums.

c. Policies would increase SMI premiums only. Premium increases are shown net of interactions with Medicaid.

account for a little more than half of the total--$249 billion through 2007. The options described below represent only some of the specific policies that could be enacted to meet the savings target.

HI savings derive from reductions in payments to hospitals, SNFs, and home health agencies. Updates to hospital payments would be reduced by 2.5 percentage points each year. That reduction would apply to hospitals paid under the prospective payment system and those paid on a cost basis; it would affect payments for capital and operating expenses. Capital payments would be further reduced in 1998 to eliminate the effect of the 1996 increase in capital payment rates.

Routine services provided in skilled nursing facilities are paid on a cost basis subject to per-day limits; those limits would be lowered. In addition, ancillary services would be paid on a per-day basis rather than on a per-service basis, and the growth in payment amounts would be limited. Capital payments to SNFs would also be reduced by 10 percent.

Home health services are paid on a cost basis subject to limits on aggregate agency expenditures. Those limits would be reduced, and new limits would be placed on the amount of spending allowed during a year for users of home health services. This illustrative budget package does not include the transfer of home health services from HI to SMI.

SMI savings would be achieved by reducing annual payment updates for services provided by physicians, clinical laboratories, and ambulatory surgery centers, as well as for durable medical equipment and other items. Fees would be set so that overall spending for physicians' services would grow by 1 percentage point less than the growth in real (inflation-adjusted) gross domestic product (GDP) per capita. Increases in payments for clinical laboratory services, durable medical equipment, and other items would also be curtailed.

Numerous combinations of policies could generate similar savings. The choice of specific policies would determine how the reduction in payments was distrib-

Table 5-6.
Illustrative Policy Package to Meet a Savings Target of $100 Billion, 1998-2002 (By fiscal year, in billions of dollars)

	1998	1999	2000	2001	2002	Cumulative Savings 1998-2002	Cumulative Savings 1998-2007
Reduction in Payments to Providers in Traditional Medicare							
Hospital[a]	2.2	4.2	6.2	8.1	10.2	30.8	117.4
Skilled nursing facility	1.2	1.7	2.8	3.2	3.6	12.6	37.6
Home health	0	1.7	2.3	2.8	4.7	11.5	47.4
Physician	0.1	1.2	2.1	2.9	3.5	9.8	32.0
Other services	0.1	0.3	0.5	0.8	1.1	2.9	14.5
Subtotal	3.7	9.1	13.9	17.8	23.1	67.6	249.0
Risk-Based Health Plans	1.0	2.8	5.4	6.7	10.3	26.1	162.5
SMI Premium Revenue[b]	-0.2	0.4	1.0	1.6	2.4	5.3	37.1
Total Medicare Savings	4.4	12.3	20.3	26.1	35.8	99.0	448.6

SOURCE: Congressional Budget Office.

NOTE: SMI = Supplementary Medical Insurance.

a. Includes impact of program savings on Hospital Insurance premiums.

b. Basic SMI premium equal to 25 percent of SMI costs, extended beyond 1998.

uted within a provider group (for example, between urban and rural hospitals, or between surgical and medical physician specialties), among provider groups (for example, between hospitals and physicians), and between the HI and SMI trust funds. If reductions in payments to one provider group were considered too austere, the savings target could be achieved by offsetting smaller reductions in payments to that group with greater cuts in updates for other providers.

CBO calculated the reductions in hospital spending, for example, by lowering payment updates for the operating and capital costs of PPS hospitals and PPS-exempt hospitals by 2.5 percentage points below the hospital market basket (an index of hospital input costs used to update payments). Instead of making that across-the-board reduction, one could also achieve savings by altering the incidence of update reductions among the different types of payments. Reductions from current-law payment levels could also be made in other payments to hospitals, including payments for graduate medical education and disproportionate share payments to hospitals serving a high percentage of low-income people.

Savings from Risk-Based Plans. The link between fee-for-service costs and payments to risk-based plans would be broken under the $100 billion savings package. Payments to risk-based plans would be updated each year by growth in GDP minus 1 percentage point. To maintain enrollment in those plans under a more stringent payment policy, the scope of Medicare's risk-based program would be expanded to include a broader array of plans, and the enrollment process would be improved. Those changes are assumed to maintain enrollment in risk-based plans at baseline levels. The payment and enrollment policies would together yield $26.1 billion in savings between 1998 and 2002, and $162.5 billion through 2007.

Premiums. Under current law, the SMI premium will remain at 25 percent of costs through 1998 and then decline. The $100 billion savings package would extend the 25 percent rule beyond 1998, yielding $5.3 billion in program savings between 1998 and 2002. That policy would generate $37.1 billion in savings through 2007.

CBO projects that the monthly premium under the $100 billion savings package would drop by 50 cents in 1998 compared with current law (see Table 5-7). That drop in the premium is the result of proposed reductions in SMI outlays that would not be offset by any increase from current law in calculating the premium. After 1998, the monthly premium would rise faster than under current law. By 2002, the premium would reach $58.10, or $6.60 a month more than it would have been without legislation. By 2007, the premium would be $83.10, or $23.40 a month more than it would have been under current law.

Table 5-7.
Projections of Monthly Premiums for Supplementary Medical Insurance (By selected calendar year, in dollars)

	1997	1998	2002	2007
Current Law	43.80	45.80	51.50	59.70
$100 Billion Savings Package	43.80	45.30	58.10	83.10
$150 Billion Savings Package				
Basic	43.80	48.80	68.80	93.80
Tied to beneficiaries' income (Maximum)	n.a.	179.40	224.10	314.00

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

Status of the Trust Fund. Outlays from the HI trust fund have exceeded receipts since 1995, resulting in a decline in the trust fund's balance. CBO projects that under current law, HI outlays will continue to outpace income, and the trust fund will be exhausted in 2001. By 2007, outlays will exceed receipts by $130 billion, and the trust fund will have a negative balance of $556 billion (see Table 5-8).

Even if the policies in this budget package were continued for 10 years, the resulting reductions in HI outlays would help to stem, but not eliminate, the net outflow of funds over the next decade. The 10-year savings total of $448.6 billion would be split between HI and SMI, with $202.4 billion coming from reductions in spending on HI services (see Table 5-6). According to CBO projections, the trust fund would be depleted in 2003 under this budget package.

The five-year savings target of $100 billion could be met in other ways that would keep the HI trust fund solvent through 2007. But to achieve that result, nearly all the savings would have to come from HI. Alternatives that assume a steady reduction in spending or an increase in payroll taxes illustrate this point, including:

- *Reducing the rate of growth of HI outlays by 4.3 percentage points each year, beginning in 1998.* The growth rate between 1997 and 2007 would drop from 7.7 percent a year under current law to 3.5 percent. HI outlays would be reduced by about $103 billion between 1998 and 2002, and nearly $460 billion between 1998 and 2007.

- *Delaying the reduction in HI outlays until 1999 and reducing the rate of growth of outlays by 5.3 percentage points each year thereafter.* By delaying a year, the growth rate of HI outlays could average only 3.2 percent a year between 1997 and 2007 if the trust fund was to maintain a positive balance through 2007. HI outlays would fall by about $88 billion between 1998 and 2002, and by nearly $470

Table 5-8.
Status of the Hospital Insurance Trust Fund, 1998-2002 and 2007 (By fiscal year, in billions of dollars)

	1998	1999	2000	2001	2002	2007
Current Law						
Income	131	136	140	144	147	160
Outlays	149	161	177	185	202	290
Surplus	-18	-25	-36	-41	-54	-130
End-of-year balance	98	73	37	-5	-59	-556
$100 Billion Savings Package						
Income	131	136	142	146	152	180
Outlays	144	151	161	165	175	220
Surplus	-13	-15	-19	-19	-23	-40
End-of-year balance	102	88	68	50	26	-152
$150 Billion Savings Package						
Income	131	137	142	147	153	186
Outlays	143	149	157	160	168	201
Surplus	-12	-12	-15	-12	-15	-15
End-of-year balance	104	92	77	64	50	-41

SOURCE: Congressional Budget Office.

billion between 1998 and 2007. To compensate for the loss in HI savings resulting from delaying policy action, additional savings of $12 billion would have to come from SMI to meet the five-year deficit reduction target.

- *Raising the HI payroll tax rate from 2.9 percent to 3.8 percent of wage and salary income, beginning in 1998.* That tax increase would generate about $200 billion in additional revenues between 1998 and 2002, twice as much as would be needed to meet the five-year savings target. This option would yield about $450 billion in revenues between 1998 and 2007, which is the same magnitude of savings the other alternatives would generate over 10 years.

Keeping the HI trust fund solvent through 2007 would require such large spending cuts or payroll tax increases that the five-year deficit reduction target could be met with little or no reduction in outlays from SMI. If the policy goal was met solely through reductions in spending for HI services, those reductions would be quite stringent. Relying solely on tax increases would, however, do nothing to slow the growth of spending that threatens Medicare's stability over the long term.

Five-Year Savings Target: $150 Billion

Increasing the amount of Medicare savings to $150 billion over the next five years would require further reductions in payment updates to fee-for-service providers. This budget package would also scale back payments to risk-based plans by limiting their payment updates to the rate of growth of GDP minus 2 percentage points. To achieve additional savings, the monthly SMI premium would go up $5 every year, beginning in 1998. An additional premium linked to the amount of beneficiaries' income would also be imposed. Total Medicare savings between 1998 and 2002 would be $151.6 billion, and $645.5 billion through 2007 (see Table 5-9).

Savings from Fee-for-Service. Lower spending in the fee-for-service sector accounts for $89.8 billion in savings between 1998 and 2002, and $332.5 billion through 2007. The limits on payments to hospitals, physicians, and other providers of outpatient services are more stringent than those in the $100 billion savings package.

Payment updates for hospital services would face an across-the-board reduction of 4 percentage points from the hospital market basket, rather than the 2.5 percentage-point reduction under the other package. Fees would be set so that overall spending for physicians' services would grow by 2 percentage points less than the growth in real GDP per capita--a drop of 1 percentage point from the $100 billion savings package. Further reductions in payments for other outpatient services would also be instituted.

As discussed earlier, a different mix of policies could achieve the fee-for-service savings in this budget package. For example, savings from a slower growth in payments for SNF and home health services could be substituted for some of the additional hospital savings assumed here. However, the range of possibilities is more limited than under the first package, given the higher level of fee-for-service savings in this one.

Savings from Risk-Based Plans. Payments to risk-based plans under the $150 billion savings package would be updated to the rate of growth of GDP minus 2 percentage points. Although this is a stricter update policy than the one in the $100 billion package, this package assumes that additional actions are taken to maintain enrollment in risk-based plans at baseline levels. Those payment and enrollment policies would together yield $32.9 billion in savings between 1998 and 2002, and $203.8 billion through 2007.

Premiums. The $150 billion savings package contains two changes in premiums that together would boost revenues by $28.9 billion between 1998 and 2002, and $109.2 billion through 2007. Every beneficiary would face an increase of $5 in the basic monthly premium each year beginning in 1998, which would account for most of the new revenues.

An additional premium would be levied on individuals with annual income greater than $50,000 and couples with income greater than $75,000. (Income thresholds would not be indexed for inflation under this option.) The additional premium would rise with income. Consequently, the basic and additional premiums combined would reach a level equal to 100 percent of SMI costs for individuals with annual income of

$100,000 or more and couples with income of $150,000 or more. That income-related premium would yield $10.1 billion in additional revenues over the next five years, and $34.3 billion through 2007.

Under the $150 billion savings package, more than 90 percent of Medicare beneficiaries would pay only the basic premium of $48.80 a month in 1998. That basic premium would rise to $68.80 by 2002, an increase of $17.30 compared with current law (see Table 5-7). Less than 3 million beneficiaries in 1998 would pay an additional premium amount, although only about 500,000 would pay the maximum premium.

The larger basic premium under this budget package would raise the costs of state Medicaid programs, which pay the premiums and cost-sharing requirements for people who are eligible for both Medicare and Medicaid. CBO estimates that total Medicaid spending would increase by about $3 billion between 1998 and 2002 because of higher payments for Medicare premiums. Of that amount, about $1.3 billion would represent additional costs to the states.

Status of the Trust Fund. The more aggressive cost cutting called for under the $150 billion savings package would contribute only modestly to the solvency of the HI trust fund, extending the date of depletion to 2005.

Conclusions About Medicare

Rapid growth in Medicare spending has been a longstanding policy concern. In spite of major payment reforms instituted during the 1980s in fee-for-service Medicare and the introduction of risk-based HMOs,

Table 5-9.
Illustrative Policy Package to Meet a Savings Target of $150 Billion, 1998-2002 (By fiscal year, in billions of dollars)

	1998	1999	2000	2001	2002	Cumulative Savings 1998-2002	Cumulative Savings 1998-2007
Reduction in Payments to Providers in Traditional Medicare							
Hospital[a]	3.2	6.3	9.4	12.4	15.6	46.9	178.5
Skilled nursing facility	1.2	1.7	2.8	3.2	3.6	12.6	37.6
Home health	0.0	1.7	2.3	2.8	4.7	11.5	47.4
Physician	0.4	1.8	3.2	4.2	5.2	14.8	51.6
Other services	0.3	0.5	0.8	1.0	1.4	4.0	17.4
Subtotal	5.0	12.1	18.4	23.7	30.6	89.8	332.5
Risk-Based Health Plans	1.2	3.5	6.7	8.5	13.0	32.9	203.8
SMI Premium Revenue							
Basic premium[b]	0.9	2.3	3.7	5.2	6.7	18.8	75.0
Tied to beneficiaries' income	0.4	2.0	2.2	2.6	3.0	10.1	34.3
Subtotal	1.3	4.2	6.0	7.8	9.6	28.9	109.2
Total Medicare Savings	7.5	19.8	31.1	40.0	53.2	151.6	645.5

SOURCE: Congressional Budget Office.

NOTE: SMI = Supplementary Medical Insurance.

a. Includes impact of program savings on Hospital Insurance premiums.

b. Basic monthly SMI premium increases by $5 each year.

Medicare has grown faster than the federal budget and the economy for decades. The desire for a balanced budget has focused particular attention on Medicare spending in recent years, but the need for basic reform of the program has been evident far longer.

Adding to the pressure for Medicare reform is the impending depletion of the HI trust fund. Payroll taxes and other receipts under current law are not able to keep pace with the growth in spending for hospital and post-acute care services. Delaying the trust fund's depletion, even by a few years, would require substantial reductions in the growth of spending on those services or increases in payroll taxes.

Many policy options would reduce spending or increase revenues without altering the incentives that have propelled the growth of Medicare's spending over the past 30 years. Such options as reducing providers' payment rates and increasing beneficiaries' premiums could ease the financing crisis, at least in the short term, but could prove inadequate in preparing Medicare for the skyrocketing demand for services that is likely to occur as the baby-boom generation reaches age 65. Policies could be adopted to lay the groundwork for addressing the long-term financing crisis. Such policies would encourage greater efficiency in delivering services, as well as more realistic expectations on the part of providers and beneficiaries about Medicare's ability to finance those services.

The challenge for policymakers is to balance the need to control federal Medicare spending with the need to maintain reasonable access to care for beneficiaries. Nontraditional approaches to the pricing and delivery of care, such as broadening the range of eligible health plans, using market-oriented payment methods, or converting to a defined contribution system, could lead to a transformation of the Medicare program. If beneficiaries and providers accepted the lower spending levels as a permanent feature of Medicare rather than as a temporary feature, they would also be more likely to accept that transformation. Such a process could be an orderly one--if it was given enough lead time.

II. Medicaid

The Medicaid program, established under title XIX of the Social Security Act, is the nation's major program providing medical and long-term care services to certain low-income population groups. The federal and state governments jointly fund the program, but the states administer it. The program constitutes an open-ended federal entitlement for eligible people, with the federal government matching state expenditures at a rate that is based on a state's per capita income relative to the national average.

Medicaid generally covers four categories of low-income beneficiaries: the elderly, the disabled, children, and certain adults in low-income families (the majority of whom receive cash welfare benefits). Recently, however, the federal government has granted waivers to several states, allowing them to expand coverage to a broader low-income population. Children account for about one-half of all Medicaid beneficiaries, but because expenditures per child are relatively low, they represent less than one-fifth of Medicaid benefit payments. By contrast, the elderly and the disabled, who constitute only one-quarter of Medicaid beneficiaries, account for more than two-thirds of Medicaid benefit payments because of their more extensive needs for medical and long-term care.

The federal government specifies a list of services that Medicaid programs must cover. Those core services include inpatient and outpatient hospital services, physicians' services, laboratory and X-ray services, nursing facility and home health services for beneficiaries age 21 and older, nurse midwife and nurse practitioner services, family planning services, rural health clinic services, and early and periodic screening, diagnosis, and treatment services for beneficiaries under age 21. States may also provide a wide range of optional services, and most choose to do so.

Although the federal government establishes the general criteria for Medicaid eligibility and covered services, the states retain considerable discretion over pro-

gram operations. As a result, the ability of the federal government to control its Medicaid spending is limited, and wide variations in eligibility, coverage, and spending exist among the states.

Recent Trends in Medicaid Spending

Federal Medicaid expenditures more than doubled between 1990 and 1996, soaring from $41 billion to $92 billion (see Table 5-10). That increase represented an average annual growth rate of more than 14 percent and drove Medicaid spending from about 3 percent to almost 6 percent of federal outlays. Spending growth was particularly dramatic in the first half of the period, averaging almost 23 percent a year between 1990 and 1993.

Two major factors contributed to that huge growth in spending: state initiatives to seek Medicaid coverage for programs that had previously been funded by the states alone, and the states' use of various financing schemes to generate matching funds for federal payments to so-called disproportionate share hospitals (DSH). Those schemes effectively enabled the states to draw down federal funds without generating the corresponding state matching amounts. Other contributing factors included the effects of the 1990-1991 recession, which resulted in significant growth in the Aid to Families with Dependent Children (AFDC) program, expansions of eligibility (some required by federal law and others that were optional for the states), new procedures to simplify enrollment, and higher payments for providers.

The federal government took steps in 1991 to reduce states' use of schemes involving illusory financing and to place limits on the growth of DSH payments. The Omnibus Budget Reconciliation Act of 1993 placed further curbs on the growth of DSH payments. Despite those measures, however, federal Medicaid spending still grew by almost 9 percent between 1994 and 1995.

Efforts to balance the federal budget, and concerns about Medicaid's role in those efforts, resulted in many proposals in 1995 and 1996 to change the underlying

Table 5-10.
Federal Outlays for Medicaid, 1990-1996 (By fiscal year)

	1990	1991	1992	1993	1994	1995	1996	Average Annual Rate of Growth, 1990-1996 (Percent)
Medicaid Outlays (Billions of dollars)	41.1	52.5	67.8	75.8	82.0	89.1	92.0	14.4
Percentage Change from Previous Year	18.8	27.7	29.1	11.8	8.2	8.7	3.3	n.a.
Medicaid Outlays as a Percentage of Total Federal Outlays	3.3	4.0	4.9	5.4	5.6	5.9	5.9	n.a.

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

fiscal relationship with the states and slow the growth of Medicaid spending. Although they had several variants, those proposals took two basic forms: block grants and so-called per capita caps. Block grants would have imposed a ceiling on the amount of federal funds that a state could draw down in any year, whereas per capita caps would have placed limits on average federal expenditures per enrollee. Both types of measures were discussed extensively by the 104th Congress, but neither was enacted.

Toward the end of fiscal year 1996, the nature of the debate about Medicaid spending, and about the reductions in program spending needed to balance the budget, suddenly changed. The growth of Medicaid spending plummeted in the first six months of that year while the Administration and the Congress were discussing proposals to curb that growth. Although spending growth picked up in the second half of the year, the overall annual growth rate was only about 3 percent.

States' anticipation of block grants appears to have been instrumental in slowing Medicaid spending in 1996. The block grant proposals under discussion would have used states' 1995 expenditures as the base for determining the amount of their future block grants. Consequently, some states shifted spending into 1995, intending to increase that base amount. In addition, the prospect of limits on the rate of growth of federal Medicaid funds may have made states wary of expanding the program further in 1996. The strength of the economy and the resulting decline in AFDC enrollment also contributed to slower growth of Medicaid enrollment.

State Medicaid programs are now in flux. States are emerging from a year in which they anticipated major federal restructuring of the program that did not occur, and they are adapting to the welfare reform initiatives enacted in 1996. (Under that legislation, many legal aliens and some other recipients of Supplemental Security Income will lose their eligibility for Medicaid.) In addition, most states are attempting to restructure their Medicaid programs; rather than being passive payers of fee-for-service claims, they are trying to become more aggressive purchasers of health care and are shifting many beneficiaries into managed care programs.

Future Spending Growth and Its Implications

Projections of spending for entitlements are always uncertain, and the rapid changes that are occurring in the Medicaid program heighten that uncertainty. Nonetheless, there are several reasons to believe that the growth of Medicaid spending will be lower than previously anticipated, at least in the near term. Lower spending projections are causing some policymakers to question the need for further reductions in the rate of growth of federal Medicaid expenditures.

CBO released its latest Medicaid baseline projections for the 1997-2002 period in January 1997 (see Table 5-11). Those projections are $86 billion lower than the projections made in May 1996. In part, that lower baseline reflects actual 1996 Medicaid spending that is $4 billion lower than estimated, but the projected average annual rate of growth also dropped significantly, from 9.6 percent to 7.8 percent. Lower projections of enrollment played an important part in that reduction. Those projections reflected recent program experience, revised estimates of the effects of certain mandatory expansions of eligibility, revised demographic assumptions, and the effects of welfare reform. In addition, projections of inflation and the use of services were lower than last May.

But for a number of reasons, lower growth is by no means assured, and growth rates are likely to pick up again after the turn of the century. Large savings from expanded enrollment in managed care are unlikely, because Medicaid's fee-for-service rates are already low and because few states are enrolling the elderly and the disabled in managed care plans. Spending for certain Medicaid services used by the elderly and the disabled, especially noninstitutional long-term care and prescription drugs, has been growing rapidly, and there is no reason to believe those pressures will abate. Furthermore, in spite of federal legislation to curb schemes involving illusory financing, states still have the means to generate federal matching funds at little or no cost to themselves (by continuing to shift programs that are entirely state-funded into Medicaid, and through the use of so-called intergovernmental transfers on which there are no restrictions).

Thus, notwithstanding projections of slower growth in the short term, Medicaid is likely to continue to be a rising component of the federal budget, and unexpected upswings in expenditures are quite possible. In the long term, moreover, major growth in spending is almost inevitable as the population ages and a rising proportion needs nursing home care and home- and community-based services.

At present, however, the federal government has little ability to control its Medicaid outlays. Because it is obligated to match all state Medicaid spending without limit, sudden increases in state spending can cause unpredictable jumps in federal Medicaid outlays, with potentially damaging consequences for the federal budget. That situation arose in the early 1990s, when many states adopted illusory financing schemes to hike up DSH payments. Federal DSH payments rose from an estimated $500 million in 1990 to $10 billion in 1992.

The current debate on whether further action is needed to slow the growth of Medicaid spending tends to focus on short-term savings. Some people question, for example, whether additional savings from Medicaid are necessary to balance the budget by 2002, given the significantly lower projections of Medicaid spending. That question is one of priorities, which policymakers have to determine. If further savings are to come from Medicaid, then policymakers must decide on the strategy to generate those savings.

But the more important question about Medicaid may be structural. Should the Congress establish mechanisms to enable the federal government to exert more control over federal Medicaid outlays and to make those outlays more predictable, even if major savings are not sought at this time? The experience of the early 1990s suggests that such a strategy might be advisable.

Structural change, moreover, could be a two-way street. Most states would welcome changes in federal policy that would give them greater flexibility to run their programs. States, for example, would like to be able to enroll beneficiaries in managed care plans and expand coverage to new populations without obtaining federal waivers; be able to establish their own reim-

Table 5-11.
Projections of Federal Medicaid Outlays, 1997-2002 (By fiscal year)

	1997	1998	1999	2000	2001	2002	Average Annual Rate of Growth, 1997-2002 (Percent)
Medicaid Outlays (Billions of dollars)							
Benefits	84.4	89.9	97.0	104.9	113.5	123.0	7.8
Payments to disproportionate share hospitals	9.8	10.3	11.1	11.8	12.7	13.6	6.8
Administration	4.4	5.1	5.5	6.1	6.6	7.2	10.2
All Medicaid outlays	98.6	105.3	113.6	122.9	132.8	143.8	7.8
Medicaid as a Percentage of Total Federal Outlays	6.0	6.2	6.4	6.5	6.8	7.0	n.a.

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

bursement rates for hospitals and nursing homes, without the threat of legal challenges to those rates under the Boren amendment (which requires states to pay rates that are reasonable and adequate to meet the costs that would be incurred by facilities that were efficiently and economically operated); and have more control over covered services. Any changes along those lines would have to be carefully weighed, however, to ensure that beneficiaries' access to care and the quality of that care was maintained. Such safeguards would be particularly important if the fiscal relationship between the federal and state governments was also to change, limiting the commitment of federal financing for the Medicaid program.

This section explores possible approaches for slowing the growth of federal Medicaid spending. It focuses on the amount of control over federal outlays that different options would allow, and on the extent to which those options would change the underlying fiscal relationship with the states.

Overview of Policy Options

To illustrate the potential effects of alternative approaches for restructuring the federal/state relationship in the Medicaid program, this section reviews four generic policy options: using block grants, placing limits on average federal expenditures per capita (known as per capita caps), reducing DSH payments, and reducing federal matching rates. DSH payments would be folded into block grants but would maintain their separate status under the other three options.

For the purpose of comparison, each option assumes approximately the same overall savings target. (The different policy tools cannot be refined to the point of producing identical projected savings.) Three of the four options--block grants, per capita caps, and reductions in DSH payments--assume that the federal government would seek to constrain the annual rate of growth in Medicaid spending over the 1998-2002 period to be no greater than the average annual rate between 1996 and 1998. Under CBO's January 1997 baseline, Medicaid outlays are projected to grow at an average annual rate of 7.0 percent between 1996 and 1998, and at an average rate of 8.1 percent between 1998 and 2002. Although many different spending paths could result in an average annual rate of growth of 7.0 percent over the 1998-2002 period, the block grant, per capita cap, and DSH options in this chapter assume that the target rate of growth would be about 7.0 percent in each of those four years. (In practice, to ensure savings, such a policy might be structured so that the annual rate of growth over the 1998-2002 period could not exceed the lesser of the actual average rate of growth for 1996 through 1998 or the baseline rate for that same period.) Achieving that rate of growth would save between $12 billion and $14 billion through 2002, depending on the option.

The fourth option, reducing federal matching rates, assumes a savings target of about $13 billion over the 1998-2002 period. But because the policy would incorporate a single change in the level of matching rates that would be introduced in 1999 and stay in effect through the remainder of the period, achieving a uniform rate of growth of spending in each year would be almost impossible.

The degree to which the federal government could control federal Medicaid outlays, and thereby guarantee a given level of savings, would vary among the options. In general, the more a particular Medicaid option enabled states to influence the amount of federal spending, the greater the uncertainty associated with the projected federal savings. Options would also differ in their short-term and long-term consequences for federal control of spending; although each of the strategies would generate short-term savings, only two of them--the block grant and per capita cap options--would change the underlying fiscal relationship with the states.

Depending on their design, the various policy options could have significantly different distributional consequences for the states. Under current law, wide disparities occur in the amount of federal Medicaid funds that states receive relative to the size of their low-income population. (Low-income people are those in families whose income is less than 150 percent of the federal poverty level.) In 1994, for example, federal Medicaid spending per low-income person ranged from less than $800 in California, Florida, Idaho, Nevada, Oklahoma, and Virginia, to more than $2,000 in Connecticut, Massachusetts, New Hampshire, New York,

and Rhode Island.[4] The distribution of federal DSH payments is even more skewed; nine states received more than $250 per low-income person in 1994, and nine states received less than $10.

As long as Medicaid remains an open-ended matching program, one might argue that such disparities reflect the choices that states have made in allocating their own resources. But some states would probably view as inequitable any policies that linked states' future federal Medicaid funds to the amounts that they currently receive, locking in the current distribution of federal funds. Combined with constraints on future federal Medicaid spending, such policies would mean that low-spending states might not be able to expand their programs in the future even if they wanted to do so and were willing to put more of their own funds into Medicaid.

Distributional concerns might arise under three of the four policy options--block grants, per capita caps, and reductions in the rate of growth of DSH payments. Those policies could, however, be designed to reduce the existing inequalities in federal Medicaid payments among the states over time. To maintain budget neutrality, however, such a strategy would mean that federal Medicaid spending would have to grow more slowly than the overall target rate in states such as New York and Massachusetts if it was permitted to grow faster than that rate in other states, such as California and Florida.

The effects of alternative options on different beneficiary groups could also vary significantly and would depend on states' responses to those options. Because the options considered here would generate relatively small savings over the 1998-2002 period, however, their impact on beneficiaries would also be quite small during that period. But the block grant and per capita cap options would establish mechanisms that would enable the federal government to curb spending after 2002, and those options could have important implications for beneficiaries in the longer term.

In general, constraints on federal spending would probably result in lower overall Medicaid spending by the states. But how states chose to curb spending growth, and by how much, would depend in part on the amount of flexibility they were granted to manage their own programs and on the status of the federal entitlement to Medicaid benefits. Given sufficient flexibility, states might resort to a variety of strategies including increased enrollment in managed care plans, lower payments to providers, or cutbacks in eligibility or benefits. Keeping a federal entitlement would protect only those beneficiaries who continued to meet the eligibility criteria, and only for those services that states continued to cover.

4. See David Liska and others, *Medicaid Expenditures and Beneficiaries: National and State Profiles and Trends, 1988-1994*, 2nd ed. (Washington, D.C.: Kaiser Commission on the Future of Medicaid, November 1996).

Option 1: Use Block Grants

Block grants were among the most widely discussed mechanisms for controlling Medicaid spending in 1995 and 1996. The typical proposal, however, was not a block grant in the usual sense of a lump-sum payment to a state. Rather, block grants referred to ceilings on the maximum amount of federal Medicaid matching funds that a state could draw down in a year. The option discussed here adopts that definition.

Variations of the option might include only part of Medicaid spending in a block grant. DSH payments or payments for Medicare premiums for qualified Medicare beneficiaries might, for example, be handled separately from a block grant. On a broader scale, a block grant policy might cover only long-term care, allowing federal payments for acute care to remain open-ended. The rationale for such a policy would be that it is the costs of long-term care that pose the more serious threat to the federal budget in the future. But block-granting federal payments for long-term care could cause significant fiscal problems in the future for states with rapidly growing elderly populations.

Description of the Option

The most important attribute of a block grant is that a state cannot draw down more than a specified amount of federal Medicaid funds in any year. Once that ceiling had been reached, further expenditures of state Medicaid funds would not be matched by the federal government. In principle, the federal government would face no additional financial exposure, regardless

of economic conditions or actions by the states. The consequence of such a policy would be to end the federal entitlement to medical benefits for eligible individuals.

An important component of a block grant policy would be the selection of the year on which the block grant amount would be based. The intent of the option is that spending in 1998 should be no greater than the baseline projection for that year and that the rate of growth should be slowed to 7 percent thereafter. But if spending in 1997 turned out to be lower than projected, the option would seek to capture those savings. Thus, if the block grant policy contained no mechanisms to redistribute federal Medicaid funds among the states, then the amount of federal Medicaid funds that a state could draw down in 1998 would be the lesser of its 1996 spending, inflated by baseline rates of growth for 1997 and 1998, or its 1997 spending, inflated by the baseline rate of growth for 1998. The block grant amounts for each of the three subsequent years would be the 1998 amount inflated by 7 percent a year. Savings would be about $1 billion in 1999, rising to almost $6 billion by 2002 (see Table 5-12).

Implications of the Policy

Of the four policy options considered in this section, a block grant approach would come the closest to ensuring that the federal government met its savings targets for Medicaid. (Savings would be uncertain in the first year because the federal government would be obligated to pay Medicaid claims incurred before the new program was established.) To achieve those savings, however, the policy could not incorporate federal guarantees of medical coverage for particular population groups. Nor could it provide special protection for states with rapid growth in enrollment that would allow them to draw down additional funds, unless slow-growing states were more tightly limited. More generally, a block grant policy would not permit federal Medicaid funding to expand during recessions, placing all the risks associated with economic downswings on the states.

The implications for the states would depend in part on whether the policy also incorporated some mechanism for redistributing federal Medicaid funds among them. Such strategies might be relatively simple, such as transferring funds from states that did not use all of their annual allotments to states in which the capped amounts were binding. (Alternatively, states might be permitted to roll over any unused allotments to the following year.) The block grant proposals under discussion in 1995 and 1996, however, incorporated complex formulas that would adjust the growth rates of block grants on a state-by-state basis to reflect relative need, subject to ceilings and floors. Through the use of such formulas, federal Medicaid spending would grow faster than the target rate of growth in some states and slower in others.

Table 5-12.
Federal Medicaid Outlays Under the Block Grant Option, 1997-2002 (By fiscal year)

	Outlays (Billions of dollars)						Average Annual Rate of Growth, 1997-2002 (Percent)
	1997	1998	1999	2000	2001	2002	
Medicaid Outlays							
Under current law	98.6	105.3	113.6	122.9	132.8	143.8	7.8
Under block grant	98.6	105.3	112.7	120.6	129.0	138.0	7.0
Savings		0	0.9	2.3	3.8	5.7	n.a.

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

Because of concerns about their potential impact on beneficiaries, previous block grant proposals also included a variety of provisions requiring states to protect certain population groups. But the states would probably strongly resist any such provisions. As far as the states are concerned, an essential quid pro quo for any constraints on federal spending would be greatly increased flexibility to manage their programs, not new restrictions.

Option 2: Use per Capita Caps

In 1995 and 1996, various forms of proposals for per capita caps were the primary policy alternatives to block grants for constraining Medicaid expenditures. Those proposals, which policymakers are still considering, would typically limit average Medicaid expenditures per beneficiary but would allow total expenditures to grow as enrollment expanded. (Those expenditures would not include DSH payments, which would be handled separately.)

A per capita cap policy would not incorporate an unlimited federal entitlement for individuals. Instead, states would bear the full fiscal responsibility for excess spending if average expenditures per full-year-equivalent enrollee rose above the capped amounts.

Description of the Option

The per capita cap option described in this chapter uses the following assumptions:

- Each state would have separate limits on average annual per capita spending for four eligibility groups: the elderly, the disabled, children, and certain adults in low-income families. Those limits would be defined in terms of annual limits on average spending per full-year-equivalent enrollee.

- The limits in 1998 would be based on the lower of that state's per capita spending for each group in 1996, inflated by the projected growth rate of national per capita spending for 1997 and 1998, or the state's per capita spending for each group in 1997, inflated by the projected growth rate of national per capita spending for 1998. (That strategy, again, reflects the intent that 1998 spending should not exceed the baseline amounts but that the federal government should capture any savings resulting from spending in 1997 being lower than projected.) The per capita limits for 1999 and beyond would be based on the 1998 limits, inflated by the target rate of growth of national per capita spending for 1999 and subsequent years. The actual rates of growth incorporated into the policy, however, would depend on a variety of factors that could affect savings, including potential responses by the states to the policy (see below).

- The eligibility criteria and the mandatory and optional benefits for the program would be the same as under current law.

- A state's federal Medicaid expenditures in any year could not exceed the sum of the products of the per capita cap amount and the number of full-year-equivalent enrollees for each eligibility group. That is, federal Medicaid expenditures would be fungible so that expenditures below the total limit for one group could offset excess expenditures for another group.

- DSH payments would be the same as under current law.[5]

Reducing growth rates of Medicaid spending to about 7 percent a year between 1998 and 2002 would require setting growth rate targets for per capita expenditures of about 4 percent a year over that period. Achieving those rates would lower the average annual growth rate of per capita spending from 6.3 percent to 4.3 percent between 1997 and 2002 (see Table 5-13). Because per capita spending for children and the disabled would grow faster under current law than per capita spending for the elderly and other adults, the rate of growth of per capita spending under the policy would fall more for children and the disabled than for the other two groups. The assumption of fungibility would, however, allow a state's actual per capita expenditures to grow faster than the target rates in some groups, if they grew

5. In reality, those payments might have to be reduced because of the slower growth in Medicaid's payments for medical assistance.

more slowly in others and if the state did not exceed its overall limit on annual expenditures.

Implications of the Policy

Per capita caps would provide less protection for the federal budget than a block grant would offer, but they would give more flexible financial support to states with rapidly growing low-income populations. A per capita cap policy could not guarantee a certain level of federal savings because the federal government would continue to share with the states the fiscal risks associated with macroeconomic uncertainty. If unemployment or poverty rates rose, thereby expanding Medicaid enrollment, federal and state Medicaid expenditures would both increase correspondingly. How the states responded to the policy could also affect federal savings. States would have incentives not only to run their programs more efficiently but also to enroll more lower-cost and fewer higher-cost beneficiaries within each eligibility group and, when possible, to classify beneficiaries into groups with higher per capita caps.

Inadequate data, moreover, could limit the federal government's ability to enforce a per capita cap strictly,

Table 5-13.
Federal Medicaid Outlays Under the Per Capita Cap Option, 1997-2002 (By fiscal year)

	1997	1998	1999	2000	2001	2002	Average Annual Rate of Growth, 1997-2002 (Percent)
				Outlays (Billions of dollars)			
Under Current Law	98.6	105.3	113.6	122.9	132.8	143.8	7.8
Under per Capita Cap	98.6	105.3	112.4	120.3	128.6	137.6	6.9
Savings		0	1.2	2.5	4.2	6.2	n.a.
				Average Spending per Full-Year-Equivalent Enrollee Under Current Law (Dollars)			
Elderly	6,650	6,950	7,260	7,670	8,100	8,600	5.3
Disabled	5,410	5,740	6,130	6,500	6,900	7,350	6.3
Children	860	910	970	1,030	1,100	1,160	6.2
Adults	1,400	1,450	1,530	1,610	1,700	1,790	5.0
All Enrollees	2,460	2,590	2,750	2,930	3,120	3,340	6.3
				Average Spending per Full-Year-Equivalent Enrollee Under per Capita Cap (Dollars)			
Elderly	6,650	6,950	7,230	7,520	7,820	8,130	4.1
Disabled	5,410	5,740	5,970	6,210	6,460	6,720	4.4
Children	860	910	950	990	1,030	1,070	4.5
Adults	1,400	1,450	1,510	1,570	1,630	1,700	4.0
All Enrollees	2,460	2,590	2,690	2,800	2,910	3,030	4.3

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

at least in the early years of the policy. Effective enforcement would depend on the availability of reliable, detailed data on expenditures and enrollment from the states, possibly requiring new or expanded reporting systems. CBO's estimates incorporate a 30 percent offset to savings that reflects the combined effects of the states' responses to the per capita limits and the difficulties in monitoring and enforcing those limits.

As with block grants, concerns about equity would probably arise if a per capita cap policy did not also redistribute federal funds among the states. States that had operated their Medicaid programs more efficiently than others in the past might find it harder to keep average expenditures below the cap amounts because they would have less "fat" to trim. Moreover, states that currently have lean benefit packages would find it difficult to expand benefits in the future, if they wanted to do so.

Option 3: Reduce DSH Payments

DSH payments currently account for almost 10 percent of federal Medicaid outlays. Reducing those payments would be a relatively straightforward way to generate Medicaid savings. Using that strategy, the rate of growth of total Medicaid spending could be trimmed to about 7 percent a year over the 1998-2002 period, taking all of the reductions out of DSH payments.

Description of the Policy

Under current law, DSH payments may not exceed 12 percent of Medicaid's medical assistance payments, nationwide. Under that policy, DSH payments can con-

Table 5-14.
Federal Medicaid Outlays Under the Option to Reduce Payments to Disproportionate Share Hospitals, 1997-2002 (By fiscal year)

	Outlays (Billions of dollars)						Average Annual Rate of Growth, 1997-2002 (Percent)
	1997	1998	1999	2000	2001	2002	
DSH Payments							
Under current law	9.8	10.3	11.1	11.8	12.7	13.6	6.8
Under option	9.8	10.3	10.0	9.0	8.0	6.5	-7.9
Medicaid Outlays							
Under current law	98.6	105.3	113.6	122.9	132.8	143.8	7.8
Under option[a]	98.6	105.3	112.8	120.7	129.3	138.4	7.0
Savings		0	0.8	2.1	3.5	5.3	n.a.

SOURCE: Congressional Budget Office.

NOTE: DSH = disproportionate share hospital; n.a. = not applicable.

a. Assumes that spending for other Medicaid services would increase.

tinue to grow as long as medical assistance payments grow. The option considered here, however, would place dollar limits on annual DSH payments that would not be affected by the growth of medical assistance payments.

Reducing the rate of growth of federal Medicaid outlays to about 7 percent a year during the 1998-2002 period would generate steadily increasing savings. Under the policy, DSH payments would be constrained to the baseline level of $10.3 billion in 1998 and would fall to $6.5 billion by 2002, or less than half of the baseline amount for that year (see Table 5-14). Some of the savings would be offset, however, by higher spending for other Medicaid services.

Implications of the Policy

Reducing DSH payments--in effect, capping the total amount that the federal government would pay--would be an administratively simple way to generate savings. But although capping DSH payments would limit the ability of the states to use certain financing schemes to generate federal funds, the fundamental underlying fiscal relationship with the states would not change. In the long term, therefore, this approach would do little to enable the federal government to gain control of federal Medicaid spending.

Under current law, states whose DSH payments are more than 12 percent of their medical assistance payments may not increase their DSH spending. States whose DSH payments are below 12 percent can increase their DSH payments up to an allotment amount that increases each year at the same rate as their medical assistance payments. A policy that placed an absolute annual limit on DSH payments would have to incorporate a method for allocating that annual amount among the states. If the basic structure of the current system was unchanged, policymakers would have to determine whether the reductions in states' DSH payments should be proportional, or whether states with high DSH payments should face greater or lesser relative reductions than states with low DSH payments. Given the inequities of the current distribution of DSH payments among the states, however, changing the structure of the program might seem preferable. The current system could, for example, be replaced by a system of targeted payments for "safety net" hospitals and other health care providers serving large numbers of low-income people.

How the policy allocated DSH funds among the states would affect their responses to the reductions. States losing a significant proportion of their DSH funds would probably increase their spending on other Medicaid services. Hence, the estimates of the option incorporate a 25 percent offset to savings.

Option 4: Lower Federal Matching Rates

Reducing federal matching rates would mean that states would receive fewer federal dollars for each state dollar that they spent on Medicaid. Such a policy would be relatively simple to implement because it would involve little other change to the existing Medicaid program.

Under current law, the federal government uses a formula that is based on a state's relative per capita income to determine the federal medical assistance percentage (FMAP), or matching rate, for the Medicaid program.[6] The FMAP may not be greater than 83 percent or less than 50 percent. The 83 percent ceiling is not currently a binding constraint; Mississippi had the highest FMAP in 1996 at 78 percent. But the 50 percent floor benefits the states with the highest per capita income (11 states and the District of Columbia in 1996) and, in some cases, makes a dramatic difference in the amount of federal funds they receive. Without the floor, the District of Columbia would have had a federal matching rate of 12 percent in 1996. The rate for Connecticut would have been 18 percent; for New Jersey, 25 percent; and for New York, 36 percent.

Description of the Option

Two alternatives for reducing federal matching rates are explored here: reducing the rates by the same proportion for all states, or lowering the floor percentage. The

6. The formula is FMAP=100*(1-[state per capita income^2/U.S. per capita income^2]*0.45).

estimates of those alternatives assume that states would elect to use their own funds to make up some of the difference between the federal funds they would have received under the old FMAP and those they would receive under the lower FMAP (if their contribution did not change).

Assuming that the states took no other action to reduce the effects of the policy, achieving $13 billion in savings over the 1998-2002 period would require a proportional reduction of 1 percent in all FMAPs beginning in 1999 (see Table 5-15). Under the option to lower the floor only, the new floor in 1999 would be 47.25 percent. But knowing that their FMAPs would be lower in 1999, some states might shift Medicaid spending from 1999 to 1998 to obtain a higher matching rate. Thus, to ensure that the $13 billion savings target was achieved, the policy could be designed so that the FMAP reductions in 1999 would be greater if 1998 spending exceeded the baseline projection.

Under both of the FMAP alternatives, savings would be distributed more evenly between 1999 and 2002 than under the three previous policy options. That pattern of savings would result because the policy would require a change in the level of matching rates in 1999 that would stay in effect throughout the period. Nonetheless, annual fluctuations in states' relative per capita income could still produce marginal changes in individual states' matching rates during the period.

Implications of the Policy

A policy to lower federal matching rates would place no limits on the amount of federal funds that states could draw down and would leave the federal entitlement for individuals unchanged. Consequently, even though states would have to pay a higher price for every federal dollar that they received, the federal fiscal obligation to the states would remain completely open-ended. Sav-

Table 5-15.
Federal Medicaid Outlays Under Options to Change Federal Matching Rates, 1997-2002 (By fiscal year)

	Outlays (Billions of dollars)						Average Annual Rate of Growth, 1997-2002 (Percent)
	1997	1998	1999	2000	2001	2002	
	Reduce Federal Matching Rates by 1 Percent						
Medicaid Outlays							
Under current law	98.6	105.3	113.6	122.9	132.8	143.8	7.8
Under option	98.6	105.3	110.8	119.8	129.5	140.2	7.3
Savings		0	2.9	3.1	3.3	3.6	n.a.
	Reduce the Floor for the Federal Matching Rate to 47.25 Percent						
Medicaid Outlays							
Under current law	98.6	105.3	113.6	122.9	132.8	143.8	7.8
Under option	98.6	105.3	110.7	119.7	129.4	140.1	7.3
Savings	0	0	2.9	3.1	3.4	3.6	n.a.

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

ings would be uncertain, therefore, and the federal government would gain no effective control over Medicaid spending.

Uncertainty about federal savings arises because those savings would depend on states' responses to lower matching rates. Those responses would reflect two opposing incentives. Because every state Medicaid dollar would generate fewer federal dollars, states would have incentives to reduce their financial commitments to the program. But some states might choose to increase their expenditures in order to lessen the impact of the federal reductions. If states made up more of the difference than assumed in the estimates in this chapter, savings would be lower (and the converse). The more of their own funds that states spent, the more federal funds they would draw down and the greater the reduction in matching rates necessary to achieve a given level of federal savings.

Reducing federal matching rates proportionately would have a relatively greater fiscal impact on states with higher matching rates. For example, under a 1 percent reduction in matching rates, a state with an FMAP of 70 percent would lose $0.70 for every $100 of state expenditures, whereas a state with an FMAP of 50 percent would lose $0.50 for every $100 of state expenditures. By contrast, lowering the floor for federal matching rates would affect only those states with the highest per capita income.

Conclusions About Medicaid

Given the recent reductions in the projected rate of growth of Medicaid spending, policymakers have differing opinions about the need to seek further Medicaid savings. Projections of future Medicaid spending are highly uncertain, however, and at present, the federal government has no effective means to control its expenditures for that program. Consequently, even if policymakers are not looking for major savings in the program, they might consider establishing mechanisms to enable the federal government to exert more control over its outlays for Medicaid in the future. Policies to achieve that goal could be accompanied by measures granting the states greater flexibility to run their Medicaid programs.

All of the approaches discussed in this chapter would expose the states to greater financial risks and give them incentives to manage their program more efficiently. States might also respond by reducing payments to providers and cutting back on eligibility and covered services.

The four options vary in the degree to which they would guarantee federal savings. After the first year or so, a block grant could ensure that federal Medicaid outlays would not exceed a target amount. Under that approach, the federal entitlement to benefits for individuals would end, and the states would bear all of the financial risks associated with economic downturns.

A per capita cap policy would enable the federal government to exert some control over future Medicaid outlays, but the degree of control would not be as tight as under a block grant. Such a policy would maintain a capped federal entitlement for individuals and, by allowing federal financing to increase with Medicaid enrollment, would require the federal government to share macroeconomic risks with the states. The states' responses to the new policy would also affect federal savings, which would not be the case with a block grant.

The other two options--reducing DSH payments and lowering federal matching rates--would generate savings but would do little to change the underlying fiscal relationship with the states. The federal entitlement to benefits would continue, and the federal government's financial commitment would remain completely open-ended. Reducing DSH payments might, however, be part of a broader policy to redirect those payments to safety-net hospitals and other health care providers serving large numbers of low-income people.

Chapter Six

Revenues

Revenues are the other side of the federal budget equation. In 1996, federal revenues were $1.45 trillion compared with outlays of $1.56 trillion. With no change in current policies governing taxes, the Congressional Budget Office (CBO) expects that revenues will grow to $1.51 trillion in 1997 and to $1.86 trillion by 2002 (see Table 6-1).

Over 90 percent of federal revenues come from income and payroll taxes. In 1996, the individual income tax alone raised 45 percent of federal revenue. Social insurance payroll taxes raised 35 percent, and the corporate income tax raised 12 percent. Excise taxes raised an additional 4 percent of federal revenue, and the rest came from estate and gift taxes, customs duties, and fees and other miscellaneous receipts.

Federal revenues claimed 19.4 percent of gross domestic product (GDP) in 1996, well above the average revenue share of 18.1 percent recorded since 1960. The Congressional Budget Office expects the federal revenue share of GDP to decline gradually over the next five years under current law, reaching 18.8 percent of GDP in 2002, which is still above its historical average. Most of that decline stems from an expected decrease in the GDP share of corporate income taxes and excise taxes.

This chapter presents a broad range of options for increasing federal revenue. The options would raise revenue from all of the major revenue sources. They differ in the way they would affect how economic resources are allocated among various uses and how tax burdens are allocated among taxpayers. In using combinations of options, however, some cautions should be observed. Because a number of options are variations of the same theme, certain combinations would not be appropriate. Moreover, some combinations of options would compound any adverse economic incentives arising from changes in tax rules.

The estimates assume that taxpayers would change their behavior in a variety of ways in response to tax increases. For example, higher taxes on alcohol or tobacco would lead to reduced consumption of those goods, whereas higher income tax rates would lead to a shift in income from taxable to nontaxable forms, deferral of income, and greater use of deductions. The estimates do not attempt to assign a numerical value to any feedback to the overall economy from, for example, changes in investment or work behavior. Although such feedback might occur, most options involve small changes, and their impacts would probably not affect economic activity enough to be noticed in the $8 trillion U.S. economy. Broad-reaching options--such as introducing a federal value-added tax--would have effects on the entire economy over time, but the size and timing of those effects are highly uncertain.

Options for raising revenues would appear to be headed against both the Administration and Congressional tide of revenue-reducing proposals introduced over the past two years. However, for a variety of reasons, the Congress may wish to consider certain revenue-raising options. First, relying on spending cuts alone may prove to be difficult in assembling a balanced budget proposal. Second, many options would raise revenue by eliminating or curtailing certain preferences in the tax code. Those steps would not only achieve deficit reduction, but also reduce the com-

plexity of the tax code and provide more even-handed treatment of taxpayers. Third, revenues from removing tax preferences could be used to pay for tax reductions that would be more neutral in their effects. Alternatively, such revenues could substitute for cutbacks in spending programs supporting the same or related activities.

Trends and International Comparisons

The federal revenue share of GDP has dropped as low as 17 percent and risen almost as high as 20 percent since 1960 (see Figure 6-1). The revenue share reached its peak in 1969, when the Congress enacted an income tax surcharge during the Vietnam War, and again in 1981 after several years of rapid inflation pushed taxpayers' incomes into higher tax brackets ("bracket creep"). Large personal and corporate tax reductions enacted in the Economic Recovery Tax Act of 1981, combined with back-to-back recessions in 1980 and 1981 to 1982, brought the revenue share down to well under 18 percent in 1983 and 1984.

In subsequent years, the revenue share rose above 18 percent before falling below that level as a result of the 1990-1991 recession and the slow recovery that followed. That drop more than offset the tax increases enacted in the Omnibus Budget Reconciliation Act of

Table 6-1.
CBO Projections for Revenues Under Current-Policy Economic Assumptions (By fiscal year)

	Actual 1996	1997	1998	1999	2000	2001	2002
			In Billions of Dollars				
Individual Income Taxes	656	676	708	740	777	817	857
Corporate Income Taxes	172	179	184	187	189	193	198
Social Insurance Taxes	509	534	553	578	604	630	659
Excise Taxes	54	54	52	53	53	54	54
Estate and Gift Taxes	17	19	21	22	23	25	26
Customs Duties	19	17	19	19	20	21	22
Miscellaneous	25	28	31	35	39	42	44
Total	1,453	1,507	1,567	1,634	1,705	1,781	1,860
On-budget	1,085	1,119	1,164	1,212	1,263	1,320	1,378
Off-budget[a]	367	388	403	422	442	461	482
			As a Percentage of GDP				
Individual Income Taxes	8.8	8.6	8.6	8.6	8.6	8.7	8.7
Corporate Income Taxes	2.3	2.3	2.2	2.2	2.1	2.0	2.0
Social Insurance Taxes	6.8	6.8	6.8	6.7	6.7	6.7	6.7
Excise Taxes	0.7	0.7	0.6	0.6	0.6	0.6	0.6
Estate and Gift Taxes	0.2	0.2	0.3	0.3	0.3	0.3	0.3
Customs Duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Miscellaneous	0.3	0.4	0.4	0.4	0.4	0.5	0.4
Total	19.4	19.3	19.2	19.0	19.0	18.9	18.8
On-budget	14.5	14.3	14.2	14.1	14.1	14.0	14.0
Off-budget[a]	4.9	5.0	4.9	4.9	4.9	4.9	4.9

SOURCE: Congressional Budget Office.

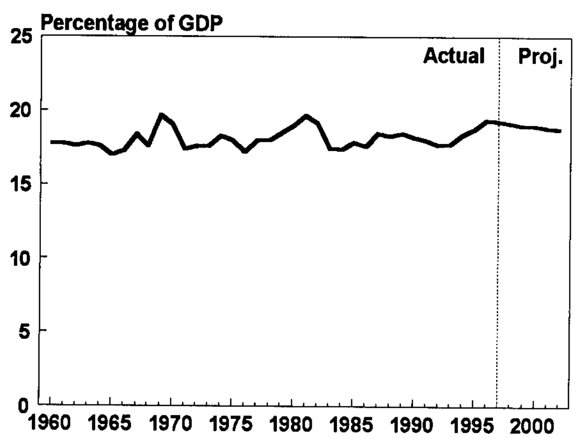
a. Social Security.

1990 (OBRA-90). The revenue share rebounded in 1994 as the economy improved and the tax increases enacted in the Omnibus Budget Reconciliation Act of 1993 (OBRA-93) took effect.

At 19.4 percent of GDP, the revenue share in 1996 was just below its highest level recorded since 1960. A number of factors contributed to the higher than usual revenue share in 1996. In addition to the OBRA-93 tax increases, the economy was generally strong. Corporate profits, in particular, reached levels relative to the size of the economy that had not been recorded in over 25 years.

In addition to the fluctuations of revenues as a share of GDP, important shifts have occurred over the last 35 years in the composition of revenues (see Figure 6-2). Individual income taxes--the largest component of total revenues--have fluctuated between about 7 percent and 9.5 percent of GDP since 1960. At 8.8 percent of GDP in 1996, the share of individual income taxes is currently in the high end of that range. Individual income taxes as a share of GDP rose sharply in the 1979-1982 period, when rapid inflation led to bracket creep that pushed up revenues, which peaked at 9.4 percent of GDP in 1981. Since the early 1980s, individual income taxes as a share of GDP have stayed below 9 percent. Barring any new legislation affecting revenues, CBO expects that individual income tax revenues will claim almost 8.7 percent of GDP a year through 2002.

Figure 6-1.
Total Revenue as a Share of GDP



SOURCE: Congressional Budget Office.

The share of GDP claimed by corporate income taxes fell between 1960 and the mid-1980s both because of a drop in corporate profits as a share of GDP and legislated reductions in tax liability. The share averaged just below 4 percent in the 1960s, 3 percent in the 1970s, and 2 percent in the 1980s. Corporate taxes as a share of GDP have grown slightly since the Congress raised corporate taxes in the Tax Reform Act of 1986. With corporate profits as a share of GDP at its highest level since 1969, its tax share of GDP was up even more in 1996. CBO expects that the revenue share of corporate taxes will decline gradually from 2.3 percent of GDP in 1996 to 2 percent in 2002.

The share of GDP claimed by social insurance taxes (mostly the Social Security payroll tax) increased steadily between 1960 and the late 1980s, as tax rates, coverage, and the share of wages subject to taxation all grew. The share swelled from just under 3 percent of GDP in 1960 to nearly 7 percent by 1988--about where it is today. Social insurance tax revenues were equal to about 25 percent of combined individual and corporate income tax revenues in 1960, about 50 percent of combined income tax revenues in 1980, and over 60 percent today.

Excise taxes--levied on such goods and services as gasoline, alcohol, tobacco, and telephone use--represent a small share of total federal revenues. Excises have claimed a decreasing share of GDP over time largely because most are levied on the quantity--not the value--of goods, and rates have not generally kept pace with inflation.

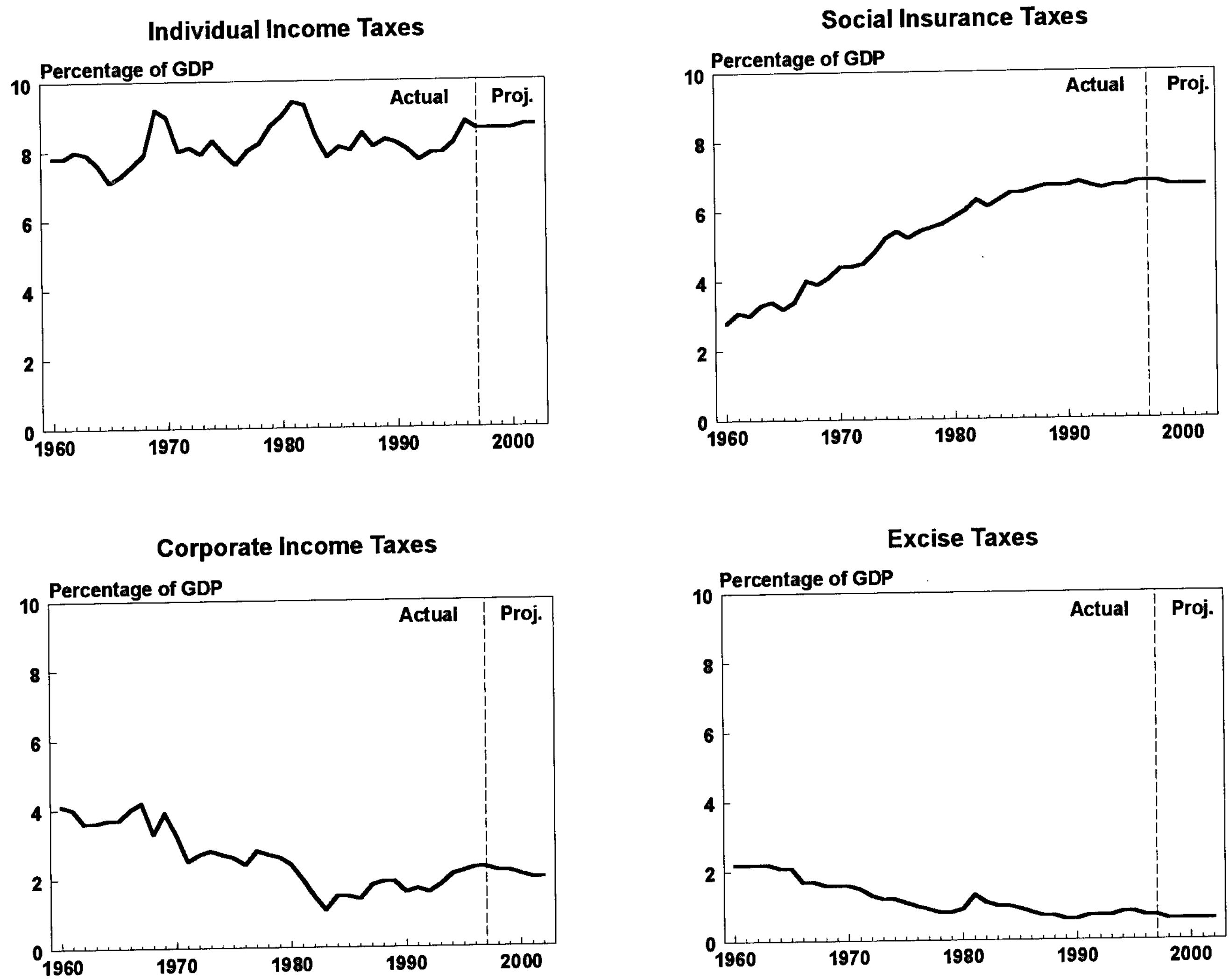
Taxes at all levels of government--federal, state, and local--amounted to nearly 30 percent of GDP in 1994. By way of comparison, the tax share of GDP for member countries of the Organization for Economic Cooperation and Development (OECD)--comprising most of the major industrialized, market-economy countries in the world--averaged nearly 40 percent in 1994 (see Figure 6-3).

Indeed, the composition of tax revenues in the United States is quite different from that in most OECD member countries. The most significant difference is the greater reliance on taxes on goods and ser-

vices in most other countries, particularly general consumption taxes such as the value-added tax (VAT). Australia and the United States are the only OECD countries without a VAT, although Australia does levy a general consumption tax in the form of a sales tax at the wholesale level. The United States has no general consumption tax at the federal level, but 45 states and the District of Columbia have a general sales tax.

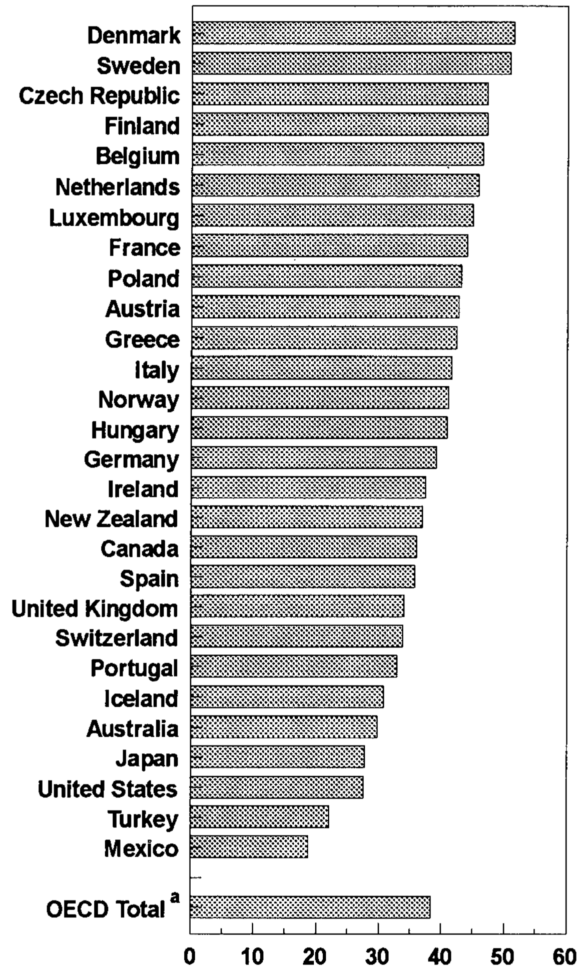
General consumption taxes at all levels of government accounted for less than 8 percent of total tax revenues in the United States in 1994, compared with 17.5 percent of total tax revenue in OECD member countries (see Figure 6-4). Of all the member countries, only Japan had a lower percentage of revenues raised by general consumption taxes than the United States. All taxes on goods and services, which include specific excise taxes as well as general consumption taxes, made up about 18 percent of total tax revenues in the United States compared with an average of 32 percent in OECD member countries. Despite a heavier reliance on consumption taxes than in the United States, revenue from income taxes, including taxes on corporate profits, are still a significant share of total revenues in OECD

Figure 6-2.
Revenues by Source as a Share of GDP



SOURCE: Congressional Budget Office.

Figure 6-3.
Total Tax Revenues as a Percentage of GDP, 1994



SOURCE: Organization for Economic Cooperation and Development (OECD).

a. Unweighted average.

member countries, averaging about one-third of revenues among European members, and one-half of revenues among Pacific Ocean members.

Revenue-Raising Options

The revenue options in this chapter are grouped according to a number of broad categories. The first set of options, REV-01 through REV-03, would raise revenues by simply raising income tax rates. Options REV-04 through REV-08 would remove certain preferences and broaden the individual income tax by restricting itemized deductions and credits. Options REV-09 through REV-17 would also remove tax preferences and broaden the individual income tax base but would do so by extending taxes to currently nontaxable employer-paid fringe benefits, and restricting the tax-favored treatment of certain types of household income.

With the release of the final report of the 1994-1996 Advisory Council on Social Security in January of this year, the Congress may address the issue of the future solvency of the Social Security and Medicare trust funds in this session. The Advisory Council report included tax options that would make major changes in the financing of Social Security. Although such options are beyond the scope of this chapter, certain more limited options presented here, such as REV-18 through REV-20, would contribute to the long-term solvency of those funds.

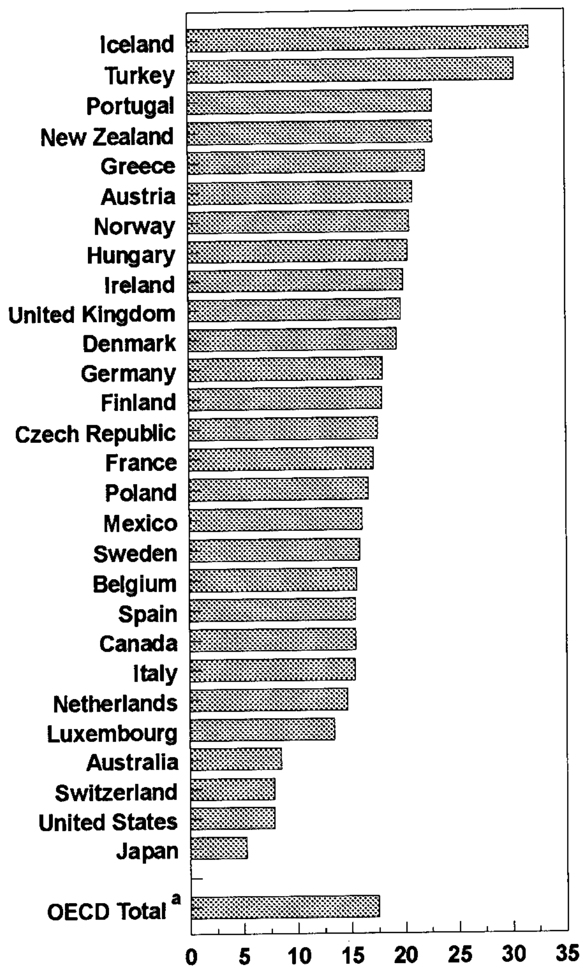
In 1996, the Congress eliminated several income tax preferences for businesses, most notably those for investment in U.S. possessions and corporate-owned life insurance. The preferences were eliminated to finance the enactment of certain tax incentives for investment by small businesses and for purchase of additional types of health insurance. Options REV-26 through REV-33 would curtail other income tax preferences for businesses.

Some Members of Congress seek more dramatic changes in the way the federal government raises revenues that go beyond changing features of the current tax structure or removing certain preferences in the current code. Those changes include a full or partial replacement of income taxes with a general consumption tax in the interests of increasing national saving and reducing the complexity of the tax system. Clearly, such changes would constitute a sweeping overhaul of the nation's tax laws. It would affect many areas of the economy as well as revenue collection, not only at the federal level but also at the state and local levels.

This volume does not address comprehensive tax reform. Such a complex change would call for extensive analysis, and most proposals for comprehensive tax reform seek to maintain revenue neutrality rather than an increase in revenues. Certain options presented

here, however, would increase the share of revenues collected from consumption-based taxes. For example, REV-34 would impose a value-added tax, whereas REV-35 would add a broad-based tax on energy. Both options assume that the current income tax system would remain in place.

Figure 6-4.
Taxes on General Consumption as a Percentage of Total Taxation, 1994



SOURCE: Organization for Economic Cooperation and Development (OECD).

a. Unweighted average.

The volume's revenue options differ in their implications for the cost of administration by the Internal Revenue Service and the cost of compliance by taxpayers. Some of the options would raise revenue from existing tax sources by increasing tax rates, broadening tax bases, or expanding tax coverage to include additional taxpayers. The government could put many of those options into place quickly and easily because the taxes are already in operation. Other options that would raise revenue from new tax sources, such as the federal value-added tax or broad-based energy tax, could impose substantial added compliance costs on taxpayers and administrative costs on the federal government because they would require additional tax computation methods and more Internal Revenue Service employees.

Certain options--such as REV-09, the first part of REV-18, and REV-19--would impose new mandates on state and local governments in their role as employers. Almost all of the options would impose mandates on the private sector. The Unfunded Mandates Reform Act of 1995 requires that CBO provide estimates of intergovernmental and private-sector mandates for new legislation. (The act exempts Social Security taxes.) The act imposes procedural hurdles on Congressional consideration of any legislative proposal that contains unfunded intergovernmental mandates in excess of $50 million for any of the first five years.

One revenue-raising option--to make all entitlement payments subject to the individual income tax--appears not in this chapter but in Chapter 4, which discusses entitlement payments and other mandatory spending. That option is part of ENT-45, which would apply a means test to federal entitlement payments.

Although most of the spending options presented in this volume would take effect on October 1, 1997, all but one of the revenue options would take effect on January 1, 1998. The VAT option has a later effective date because putting the tax in place would take more time. The revenue estimates for the options, most of which the Joint Committee on Taxation prepared, may differ from estimates for similar provisions in actual tax legislation as a result of differences in effective dates, transition rules, and technical details.

REV-01 RAISE MARGINAL TAX RATES FOR INDIVIDUALS AND CORPORATIONS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Individuals						
Raise Marginal Tax Rates to 16 Percent, 30 Percent, 33 Percent, 38 Percent, and 42 Percent, and the Top AMT Rate to 30 Percent	28.9	41.2	46.5	48.2	50.3	215.1
Raise the Top Marginal Tax Rates to 38 Percent and 42 Percent	6.9	2.9	6.5	6.7	6.8	29.8
Corporations						
Raise the Top Marginal Tax Rate to 36 Percent	2.0	4.0	4.1	4.2	4.2	18.5
Raise the AMT Rate to 25 Percent	2.3	4.1	3.4	2.8	2.3	14.9

SOURCE: Joint Committee on Taxation.

NOTE: AMT = alternative minimum tax.

Rate increases have some administrative advantages over other types of tax increases because they require relatively minor changes in the current tax collection system. But rate increases have drawbacks as well. Higher tax rates can reduce incentives to work and save. They also encourage taxpayers to shift income from taxable to nontaxable forms (such as substituting tax-exempt bonds for other investments or tax-free fringe benefits for cash compensation) and to increase spending on tax-deductible items such as home mortgage interest and charitable contributions. In those ways, higher tax rates may cause a less efficient use of economic resources.

Individuals. Under current law, five explicit marginal tax rates apply to taxable income: 15 percent, 28 percent, 31 percent, 36 percent, and 39.6 percent. (The marginal tax rate is the percentage of an extra dollar of income that a taxpayer must pay in taxes.) The maximum marginal tax rate on capital gains income is 28 percent. Some taxpayers face effective marginal rates higher than the top rate of 39.6 percent because of provisions that phase out their itemized deductions and personal exemptions. (See Table 6-2 for the levels of taxable income at which the marginal rates apply for 1997.)

Increasing all marginal tax rates on ordinary income to 16 percent, 30 percent, 33 percent, 38 percent, and 42 percent (approximately a 7 percent increase) would raise about $215 billion in 1998 through 2002. This option would also increase the top marginal tax rate under the alternative minimum tax (AMT) to 30 percent in order to keep the rate aligned with regular tax rates and avoid a major shift of payments between the AMT and regular tax. The alternative minimum tax is

now imposed on individuals at rates of 26 percent and 28 percent on an income base broader than the regular tax. Individuals pay the larger of the AMT or the regular tax. Under this option, families with tax credits would face a somewhat larger percentage increase in their tax liabilities than other taxpayers, and families whose earned income tax credit gives them a tax refund might have to pay tax. (This option and the next one assume that the maximum rate on capital gains would remain at 28 percent.)

Another option is to increase only the top two marginal tax rates. Increasing the current 36 percent rate to 38 percent and the 39.6 percent rate to 42 percent would raise revenues by about $30 billion in 1998 through 2002. For 1998, this option would increase taxes for married couples with a taxable income of more than $156,200 and single filers with a taxable income of more than $128,300. The change would affect just over 1 percent of tax filers.

The estimates assume that taxpayers will change their behavior in a variety of ways if marginal tax rates are raised, chiefly by shifting income from taxable to nontaxable or tax-deferred forms. However, those estimates do not incorporate changes in work effort. Because higher tax rates reduce the payoff from working, individuals are likely to shift more of their time from work in the market place to untaxed activities such as child care, other work in the home, or leisure time. People may also leave occupations or jobs in which higher pay reflects riskier, more demanding, or unpleasant work or involves more costly investments in schooling and training. The extent to which those changes in work behavior occur is likely to vary among individuals. For example, it would depend on the size of the effective tax increases people would face as well as on their potental rewards from unpaid nonmarket work. Another factor would be whether the individuals could receive other income such as pension or transfer payments, which often increase when earnings decline. Those effects are difficult to measure, and the available statistical evidence on their magnitude and timing is inconclusive.

Table 6-2.
Individual Income Tax Brackets, 1997 (In dollars)

Taxable Income for Single Filers	Marginal Tax Rate (Percent)	Taxable Income for Married Couples
0 to 24,650	15.0	0 to 41,200
24,651 to 59,750	28.0	41,201 to 99,600
59,751 to 124,650	31.0	99,601 to 151,750
124,651 to 271,050	36.0	151,751 to 271,050
271,051 and Over	39.6	271,051 and Over

SOURCE: Internal Revenue Service.

NOTE: Separate schedules apply for single taxpayers who file a head-of-household return or married taxpayers who file separate returns.

Corporations. The tax rate for corporations is 15 percent on taxable income up to $50,000, 25 percent on income from $50,000 to $75,000, 34 percent on income from $75,000 to $10 million, and 35 percent on income above $10 million. The tax benefit from the 15 percent, 25 percent, and 34 percent rates is recaptured for corporations by an additional 5 percent tax that is levied on taxable income between $100,000 and $335,000 and a 3 percent additional tax on income between $15 million and $18.3 million (see REV-03).

Corporations also face the alternative minimum tax, which limits their use of tax preferences. When computing taxable income for the alternative minimum tax, taxpayers may not make certain adjustments that are otherwise allowed in computing regular taxable income. Those adjustments are of two types: deferral preferences, such as accelerated depreciation, excess intangible drilling costs, and profit or loss from long-term contracts; and exclusion preferences, such as some tax-exempt interest and percentage depletion. As with individuals, corporations must pay the larger of the regular tax or the AMT and can use one year's AMT as a credit against regular tax liability in future years. (Individuals can only use as credits the portion of the AMT that arises from deferral preferences.) Thus, a portion of the revenue gain from a higher AMT rate would result from a shift of some future tax liabilities to earlier years.

Increasing the top marginal rate for corporations to 36 percent would raise $18.5 billion in 1998 through 2002. Out of approximately 1 million corporations that have positive corporate tax liabilities each year, only about 3,500 pay income taxes at the top rate and would be affected by this option. Nonetheless, those firms earn approximately 80 percent of all corporate taxable income. The change would not, however, affect corpo-

rations that always pay the AMT. Moreover, those corporations paying the regular tax--but with unused credits--could offset some of the tax increase.

Boosting the corporate AMT rate to 25 percent would raise about $4 billion in 1999. But it would yield decreasing amounts thereafter because the revenue raised represents a shift of future liabilities to earlier years, as described earlier. Proponents of the corporate AMT argue that it improves the perceived fairness of the tax system because it largely ensures that corporations reporting profits to shareholders pay the corporate tax. Critics maintain, however, that the corporate AMT places a greater tax burden on rapidly growing and heavily leveraged corporations and increases incentives to engage in tax-motivated transactions. For example, a firm that expects to pay the AMT may be able to reduce its tax by leasing its equipment rather than owning it and using the accelerated depreciation tax preference. In addition, critics point to evidence that suggests the costs to businesses of complying with the AMT are large relative to the revenue raised. Responding to such criticisms, the Congress adopted AMT relief in the vetoed Balanced Budget Act of 1995 by no longer treating accelerated depreciation for future investment as a taxable preference and by providing greater use of AMT credits.

Relationship Between Top Rates Affects Business Form. Changes in the difference between the top corporate and individual tax rates affect the form of organization a business chooses. Owners of corporate businesses pay the corporate income tax on their business income and the individual income tax if they distribute that income as dividends. Owners of noncorporate businesses pay tax only at the individual level but on total business income. The top individual tax rate is now above the corporate tax rate, making it relatively more advantageous for businesses that retain their earnings to choose the corporate form. Subsequent changes in that relationship would alter the incentives that businesses face when they choose their organizational form.

REV-02 AMEND OR REPEAL THE INDEXING OF INCOME TAX SCHEDULES

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Suspend Indexing for 1998 (Except for the earned income tax credit)	5.7	10.3	11.4	10.3	11.6	49.3
Repeal Indexing (Except for the earned income tax credit)	5.7	16.4	28.6	40.5	54.2	145.4

SOURCE: Joint Committee on Taxation.

To offset the effects of inflation, current law each year indexes the standard deduction, the personal exemption, the minimum and maximum dollar amounts for each tax rate bracket, the thresholds for the phaseout of personal exemptions, the limit on itemized deductions, and the earned income tax credit (EITC). A repeal of indexing (except for the EITC), beginning in 1998, would raise revenues by about $145 billion from 1998 through 2002, if the annual rate of inflation averages 3 percent over the period, as the Congressional Budget Office projects. Revenues from the repeal would grow rapidly as the effect of repeal cumulated over time. Suspending indexing only for 1998 would raise about $50 billion over the five-year period.

An alternative to suspending or repealing indexing is to index by something less than the full annual increase in the consumer price index (CPI) that applies under current law. If the CPI tends to overstate the increase in the cost of living, as many analysts believe, then indexing by less than the full CPI increase would be appropriate. The magnitude of the overstatement, however, is subject to much debate. For example, the Advisory Commission to Study the Consumer Price Index (known as the Boskin Commission) recently estimated the overstatement at about 1 percentage point a year. Indexing by 0.5 percentage points less than the estimated increase in the CPI would raise revenues and reduce EITC outlays by about $29 billion over the 1998-2002 period.

Repealing or suspending indexing would not burden all taxpayers equally. Among families with the same income, the tax increase would be smaller for taxpayers who itemize than for those who use the standard deduction, and for families without children than for families with children (and more personal exemptions). As long as the EITC continued to be indexed, low-income families would have a smaller percentage drop in after-tax income than other families because they have little or no taxable income. The percentage drop in after-tax income would also be small for families with the highest incomes because they receive no benefit from the personal exemption, and most of them do not take the standard deduction. A general rate increase would allocate additional taxes more equally among families with the same income than repealing or suspending indexing would (see REV-01).

Another reason for retaining indexing is that it prevents unlegislated tax increases. Without indexing, inflation would cause the average income tax rate to increase without any legislative action.

REV-03 TAX ALL CORPORATE INCOME AT A 35 PERCENT RATE

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	1.8	3.6	3.6	3.7	3.7	16.4

SOURCE: Joint Committee on Taxation.

Under current law, corporations pay a 35 percent statutory tax rate on their taxable income in excess of $10 million. Income below that amount is subject to tax at reduced rates of 15 percent, 25 percent, and 34 percent. Eliminating the reduced corporate rates and taxing all corporate income at the single 35 percent rate would raise an estimated $16.4 billion from 1998 through 2002.

Firms with taxable income below $75,000 have tax rates of 15 percent or 25 percent. Firms with taxable income between $75,000 and $10 million have a tax rate of 34 percent, and those with income above $10 million have a 35 percent rate. Compared with a single 35 percent statutory rate, corporations with taxable income between $10 million and $15 million pay $100,000 less in taxes--the maximum benefit from the lower rates.

The tax benefit from the reduced rates is phased out for corporations with income above certain amounts by an additional 5 percent tax that is levied on corporate taxable income between $100,000 and $335,000 and a 3 percent additional tax on income between $15 million and $18.3 million. As a result, corporations with income of more than $18.3 million pay an average rate of 35 percent and receive no benefit from the reduced rates.

The Congress enacted the reduced rates to provide tax relief to small and moderate-sized businesses. Of the approximately 1 million corporations that have positive corporate tax liabilities each year, only about 3,500 do not qualify for reduced rates, although they earn about 80 percent of total corporate profits. Reduced rates not only provide a competitive advantage to some small and moderate-sized businesses, but other taxpayers benefit as well. For example, high-income individuals can benefit because the provision allows them to shelter income as retained earnings in a small corporation. Tax law does not allow owners of personal service corporations--such as physicians, attorneys, and consultants--to incorporate themselves in order to gain the tax benefit. Other high-income individuals still use those opportunities for tax shelters, however. Additional unintended recipients of the tax benefit from reduced rates are large businesses with low profits. Furthermore, some of those large corporations may be able to control the timing of certain income and expenses in order to generate low taxable income--and the tax benefit--in certain years.

The reduced corporate rates do lessen the "double taxation" of corporate income. Owners of corporate businesses pay corporate tax on all of the earnings of the business and also pay individual tax on the part of their earnings that they receive as dividends. Owners of noncorporate businesses, however, pay tax at only the individual level on all earnings.

Lower corporate rates are not the only means of reducing the double tax on the income of those businesses. As an alternative to incorporation, many businesses--especially small ones--could operate as sole proprietorships or partnerships and pay tax only under the individual income tax. In addition, many small businesses could enjoy the advantages of incorporation by operating either as S corporations, which must have 75 or fewer owners and satisfy other requirements, or as limited liability companies (LLCs), which generally possess fewer restrictions, especially for businesses choosing an organizational form for the first time. Owners of S corporations and LLCs also pay under the individual income tax only.

REV-04 ELIMINATE OR LIMIT DEDUCTIONS FOR MORTGAGE INTEREST

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Eliminate Mortgage Interest Deductions	32.7	44.8	46.5	48.4	50.3	222.7
Reduce Maximum Mortgage Principal Eligible for Interest Deductions to $300,000	2.1	2.3	2.5	2.8	3.0	12.7
Limit Deductions to $12,000 per Return (Single) or $20,000 (Joint)	2.6	3.7	3.9	4.2	4.6	19.0
Limit Deductions for Second Homes	0.5	0.7	0.7	0.8	0.8	3.5

SOURCE: Joint Committee on Taxation.

A home is both the largest consumer purchase and the main investment for most Americans. The tax code has historically treated homes more favorably than other investments. For example, current law allows homeowners to deduct mortgage interest expenses, even though homes do not produce taxable income. It also exempts most capital gains from home sales (see REV-23).

Preferential treatment for home ownership encourages people to become homeowners and to purchase larger homes. Increasing home ownership may contribute to social and political stability by strengthening people's stake in their communities and governments. In addition, such preferential treatment may stabilize neighborhoods by encouraging longer-term residence and home improvement. The amount of preference, however, is probably larger than needed to maintain a high rate of home ownership. For example, Canada achieves about the same rate of home ownership as the United States without allowing the deduction of mortgage interest. Instead of the deduction, some provinces provide a limited tax credit for low- and middle-income people who save for a down payment, but the long-run value of the credits is much less than the value of the deductibility of mortgage interest.

A disadvantage of providing preferential tax treatment for investment in home ownership is that it reduces the amount of savings available for investment in taxable business enterprises. That shift may contribute to a relatively low rate of investment in business assets in the United States compared with other developed countries that do not allow such large mortgage interest deductions. In recent years, one-third to one-half of net private investment has gone into owner-occupied housing. Consequently, even a modest reduction in investment in owner-occupied housing could raise investment significantly in other sectors.

Limiting mortgage interest deductions would reduce the preferential treatment of home ownership for those owners who must borrow to purchase their homes. Under current law, taxpayers may deduct interest on up to $1 million of debt that they have incurred to acquire and improve first and second homes. They may also deduct interest on up to $100,000 of other loans they have secured with a home (home-equity loans), regardless of purpose. No other type of consumer interest is deductible. Current law also limits the extent to which interest deductions for carrying assets other than first and second homes can exceed income from such assets.

The limits under current law on mortgage interest deductions result in a generous subsidy even for relatively expensive homes. Moreover, taxpayers with substantial home equity can circumvent the limits on consumer and investment interest deductions by using, for example, home-equity loans with deductible interest to finance automobiles and other consumer purchases or investment in assets other than homes. In contrast, renters and people with less home equity cannot use that method to deduct interest on the loans they use to finance auto and other purchases.

Eliminate Interest Deductions. Eliminating the deductibility of mortgage interest would increase tax revenues by about $225 billion over the 1998-2002 period. Taxes would increase for about 30 million homeowners by an average of about $1,500 in 1997. Limiting the mortgage interest deduction would raise the cost of home ownership, causing the demand for homes to fall as some people chose to delay purchases, buy smaller homes, or rent rather than own. Homeowners currently claiming the mortgage interest deduction would see a sharp increase in net mortgage payments, forcing some to sell other assets, while others without such resources could potentially no longer afford their homes.

The decreased demand for homes would reduce housing prices somewhat and cut back new housing construction, although the demand for rental housing would increase. Other investments would replace investment in housing to some extent. As a result, losses to the home-building industry would be offset by gains in other sectors.

Reduce the Principal Eligible for Deduction. Lowering the limit on the amount of principal eligible for the mortgage interest deduction from $1 million to $300,000 would reduce deductions for about half a million taxpayers with large mortgages and increase revenues by $12.7 billion over the 1998-2002 period. That change would reduce the deduction only for owners of relatively expensive homes. It would not affect the vast majority of homeowners. The fraction affected would be greatest in high-cost areas such as Honolulu and San Francisco. Because the proposal would not index the limits for inflation, the real value would gradually decline. Phasing down the limit gradually would cushion the effects on most current homeowners and the home-building industry.

Cap Interest Deductions. Capping the mortgage interest deduction would have effects similar to limiting the principal eligible for deduction. One difference is that fluctuating interest rates would affect deductions subject to the interest cap but would not affect deductions subject to the limit on mortgage principal. Owners with adjustable-rate mortgages and people buying when interest rates are high would be affected by that difference.

Capping the mortgage interest deduction at $12,000 per single return, $20,000 per joint return, and $10,000 per return for married couples who file separately would raise about $19 billion in revenues in 1998 through 2002. Those limits are much higher than the deductions most taxpayers claim. Of the 29 million taxpayers who claimed the mortgage interest deduction in 1994, about 1.1 million (4 percent) had deductions that exceeded those limits; the average deduction for home mortgage interest was about $6,600. At an 8 percent interest rate, the proposed $20,000 cap would allow full interest deductions on new fixed-rate mortgages as large as about $250,000. Only 6 percent of new mortgages originated in 1996 exceeded that amount.

Limit Interest Deductions for Second Homes. A final option is to limit deductibility only to interest on debt that taxpayers incur to acquire and improve a primary residence, plus $100,000 of other debt secured by that home. That approach would require interest deductions for second homes to qualify under the $100,000 limit on home-equity loans. The proposal would increase revenue by $3.5 billion in 1998 through 2002.

Permitting taxpayers to deduct the interest from mortgages on second homes--many of which are vacation homes--may seem inequitable when taxpayers cannot deduct interest from consumer loans used to finance education, medical expenses, and other consumer purchases. However, limiting the deduction of mortgage interest to a single home would retain the present deduction for taxpayers with high mortgage interest on a costly primary home while partially denying it for other taxpayers with equal combined mortgage interest on two less costly homes.

REV-05 ELIMINATE OR LIMIT DEDUCTIONS OF STATE AND LOCAL TAXES

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Eliminate Deduction of State and Local Taxes	19.8	48.9	51.0	52.9	55.2	227.8
Limit Deductions to the Excess over 1 Percent of Adjusted Gross Income	2.2	7.4	7.7	8.0	8.2	33.5
Prohibit Deductibility of Taxes Above a Ceiling of 8 Percent of Adjusted Gross Income	2.6	8.1	8.3	8.5	8.8	36.3

SOURCE: Joint Committee on Taxation.

In determining their taxable income, taxpayers may claim a standard deduction or itemize and deduct from their adjusted gross income (AGI) certain specific expenses, including state and local income, real estate, and personal property taxes. For taxpayers who itemize, those deductions provide a federal subsidy of state and local tax payments. That subsidy may cause itemizers to support higher levels of state and local services than they would otherwise. Consequently, the deductions indirectly finance increased state and local government spending at the expense of other uses of federal revenues.

The Tax Reform Act of 1986 reduced the subsidy to state and local governments directly by repealing the deduction for state and local sales taxes, and indirectly by increasing the standard deduction and lowering marginal rates. The latter changes reduced both the number of itemizers and the value of the deductions. The Omnibus Budget Reconciliation Act of 1993 raised marginal tax rates for higher-income households and thus indirectly increased the value of the deductions.

As a way to assist state and local governments, deductibility of state and local taxes has several disadvantages. First, the deductions reduce federal tax liability only for itemizers. Second, because the value of an additional dollar of deductions increases with the marginal tax rate, the deductions are worth more to higher-bracket taxpayers. Third, deductibility favors wealthier communities. Communities with higher average income levels have more residents who itemize and are therefore more likely to spend more because of deductibility than lower-income communities. Fourth, deductibility may discourage states and localities from financing services with nondeductible user fees, thereby discouraging efficient pricing of some services.

An argument against restricting deductibility is that a taxpayer with a large state and local tax liability has less ability to pay federal taxes than one with equal total income and a smaller state and local tax bill. In some areas, a taxpayer who pays higher state and local taxes may receive more benefits from publicly provided services, such as recreational facilities. In that case, the taxes are more like payments for other goods and services (for example, private recreation) that are not deductible. Alternatively, higher public expenditures resulting from deductibility benefit all members of a community, including lower-income nonitemizers who do not receive a direct tax saving.

Eliminating or limiting the value of the state and local deduction could raise significant revenues. Eliminating deductibility would raise over $225 billion in 1998 through 2002. An alternative option would allow

deductions only for state and local tax payments above a fixed percentage of AGI. A floor of 1 percent of AGI on deductions would increase revenues in 1998 through 2002 by about $34 billion. Another alternative would be to prohibit deductions above a fixed ceiling, which also might be a percentage of AGI. A ceiling set at 8 percent of AGI would increase revenues by about the same amount--$36 billion in 1998 through 2002. A floor and a ceiling, however, would have very different effects on incentives for state and local spending. A floor would retain the incentive for increased spending, but a ceiling would reduce it.

REV-06 ELIMINATE OR LIMIT DEDUCTIONS FOR CHARITABLE GIVING

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Eliminate Deductions for Charitable Giving	3.2	21.6	22.6	23.7	24.8	95.9
Limit Deductions for Appreciated Property to Its Tax Basis	0.3	1.9	2.0	2.1	2.1	8.4
Limit Deductions to the Excess over 2 Percent of Adjusted Gross Income	1.5	9.8	10.3	10.8	11.3	43.7

SOURCE: Joint Committee on Taxation.

Under current law, taxpayers who itemize deductions can deduct the value of contributions they make to qualifying charitable organizations. The amount of deductions cannot exceed 50 percent of adjusted gross income in any year. In 1994, 30 million taxpayers claimed just over $70 billion of deductions for charitable contributions, reducing federal revenues by about $18 billion. In addition to cash donations, taxpayers can deduct the fair market value of a contribution of appreciated property that they have held for more than 12 months, regardless of how much they paid for the property.

Eliminating the deductibility of charitable contributions would increase tax revenues by about $3 billion in 1998 and by $96 billion over the 1998-2002 period. In 1998, it would increase tax liabilities of roughly 30 million taxpayers by an average of about $675 per return, most of which would be paid in fiscal year 1999.

The deduction provides significant government support for charitable activities. But one criticism of the deduction is that the electorate as a whole, and not individual donors, should make decisions about which activities deserve taxpayer support. Another criticism is that the deduction provides unequal federal matching rates for contributions by different taxpayers. The government subsidy rates can approach 40 percent of contributions for the highest-income taxpayers, but are only 15 percent for taxpayers in the lowest tax bracket and zero for people who do not itemize deductions.

Nonetheless, the decisions of individuals about donations may be the best measure of which activities should receive government support and yield substantial contributions. Without deductibility, contributions would drop. However, the magnitude of the decline is uncertain.

Alternatively, limiting the deduction of appreciated property to a taxpayer's cost of an asset under the regular income tax would increase revenues by about $0.3 billion in 1998 and by more than $8 billion over five years. The existing provision allows taxpayers to deduct the entire value of assets they contributed even though they paid no tax on the gain from appreciation. That outcome provides preferential treatment to one kind of donation relative to other kinds and expands the preferential treatment of capital gains (see REV-24). Indisputably, however, the present provision encourages people to donate appreciated assets to eligible activities rather than passing them on to their heirs at death, when any gains also escape income tax.

Yet another way to limit the charitable deduction, while retaining an incentive for giving, is to allow taxpayers to deduct only those contributions in excess of 2 percent of adjusted gross income. That alternative would retain an incentive for increased giving by people

who donate a large share of their income but would remove the incentive for smaller contributors. It would completely disqualify the charitable deductions of about 17 million taxpayers in 1998 and reduce allowed deductions for roughly another 15 million, increasing revenues by about $1.5 billion in 1998 and by about $44 billion over the 1998-2002 period. Such a change would eliminate the tax incentive for just over 50 percent of the taxpayers who currently make and deduct charitable contributions. In addition, it would encourage taxpayers who planned to make contributions over several years to lump them together in one tax year to qualify for a deduction with the 2 percent floor.

REV-07 LIMIT THE TAX BENEFIT OF ITEMIZED DEDUCTIONS TO 15 PERCENT

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	25.9	57.1	59.4	61.6	64.3	268.3

SOURCE: Joint Committee on Taxation.

Current law allows taxpayers to reduce taxable income by the amount of itemized deductions. Taxpayers who itemize may deduct state and local income and property taxes, home mortgage interest payments, contributions to charity, employee business expenses, moving expenses, casualty and theft losses, and medical and dental expenses. Taxpayers benefit from itemizing if their deductions exceed the standard deduction. Current law limits some itemized deductions to the amount in excess of a percentage of adjusted gross income, and it reduces all itemized deductions for high-income taxpayers.

The tax benefit of itemized deductions, like all deductions, increases with a taxpayer's marginal tax bracket. For example, $10,000 in itemized deductions would reduce taxes by $1,500 for a taxpayer in the 15 percent tax bracket, $2,800 for a taxpayer in the 28 percent bracket, and $3,960 for a taxpayer in the 39.6 percent bracket. Most taxpayers do not itemize deductions. Among the 30 percent of taxpayers who do itemize, however, about half are in tax brackets above 15 percent. This option would limit the tax benefit of itemized deductions to 15 percent for those higher-bracket taxpayers. The limit would increase revenues by about $268 billion over five years.

Limiting the tax benefit of itemized deductions would make the income tax more progressive by raising average tax rates for most middle- and upper-income taxpayers. The limit might also improve economic efficiency because it would reduce tax subsidies that lower the after-tax prices of selected goods, such as mortgage-financed, owner-occupied housing.

The itemized deductions for health expenses, casualty losses, and employee business expenses, however, are not subsidies of voluntary activities, but are instead allowances for costs that reduce the ability to pay income tax. Under this option, some taxpayers would pay tax on receipts they use to defray such costs because they would pay tax on their gross income at rates above 15 percent, but could deduct only 15 percent of the cost of earning income. Thus, an individual with unusually high medical bills, for example, would pay more tax than another individual with the same ability to pay but who had low medical bills.

Like other limits on itemized deductions, this option would create incentives for taxpayers to avoid the limit by converting itemized deductions into reductions in income. For example, taxpayers might draw down assets to repay mortgages, reducing both income and mortgage payments, or donate time or services rather than cash to charities. The option would also make calculating taxes more complex for itemizers.

REV-08 PHASE OUT THE DEPENDENT-CARE CREDIT

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Set the Phaseout Starting at:						
$30,000	0.8	1.6	1.6	1.7	1.7	7.4
$50,000	0.5	1.0	1.0	1.1	1.1	4.7
$65,000	0.3	0.6	0.7	0.7	0.8	3.1

SOURCE: Joint Committee on Taxation.

Taxpayers who incur employment-related expenses for the care of children and certain other dependents may claim an income tax credit. The credit per dollar of qualifying expenses declines from 30 percent for taxpayers whose adjusted gross income (AGI) is $10,000 or less to 20 percent for taxpayers whose AGI is above $28,000. Tax law limits creditable expenses to $2,400 for one child and $4,800 for two or more. Creditable expenses cannot exceed the earnings of the taxpayer or, in the case of a couple, the earnings of the spouse with lower earnings. In 1994, taxpayers claimed about $2.5 billion in credits on 6 million tax returns.

About two-fifths of the credit benefits taxpayers with AGIs of $50,000 or more. Retaining the credit only for lower-income families would reduce its revenue cost. One way to do that would be to reduce the percentage of credit as income rises. For example, reducing the credit percentage by 1 percentage point for each $1,500 of AGI over $30,000 would raise $7.4 billion from 1998 through 2002. That option would reduce the credit for about 37 percent of currently eligible families and eliminate it for another 37 percent (families with AGI over $58,500). Alternatively, phasing out the credit between $50,000 and $78,500 would raise about $4.7 billion in the same period. That option would reduce the credit for about 27 percent of eligible families and eliminate it for another 20 percent. Finally, phasing out the credit between $65,000 and $93,500 would raise $3.1 billion in the same period, reducing the credit for about 20 percent of eligible families and eliminating it for roughly another 10 percent.

The credit provides a work subsidy for families with children. Phasing out the credit for higher-income families targets that subsidy toward families with greater economic need, but it may discourage parents in families with a reduced credit from working outside the home.

If the credit was phased out, higher-income employees could seek other tax benefits for dependent care by asking their employers to provide subsidized day care. Current law allows workers to exclude from taxable income up to $5,000 of annual earnings used to pay for dependent care through employer-based programs. If more employer-subsidized dependent care was provided, budgetary savings would be reduced. To preclude taxpayers from using that alternative, the Congress could limit the use of the fringe benefit.

REV-09 IMPOSE AN EXCISE TAX ON NONRETIREMENT FRINGE BENEFITS

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	3.8	5.8	6.1	6.4	6.8	28.9

SOURCE: Joint Committee on Taxation.

NOTE: Estimates are net of reduced income and payroll tax revenues.

Unlike employee compensation paid in cash, many fringe benefits are exempt from income and payroll taxes. The exemption of employer-paid health and life insurance premiums from tax will cost about $49 billion in income taxes and $33 billion in payroll taxes in 1998. In addition, the law explicitly excludes from gross income employer-paid dependent care and miscellaneous benefits such as employee discounts, parking valued below a specified limit, and athletic facilities. Imposing an excise tax on fringe benefits would diminish the effects of those exclusions.

Excluding fringe benefits from gross income effectively subsidizes their cost, thereby causing people to consume more of such benefits than they would if they had to pay the full price. As a result, resources may be allocated inefficiently. For example, excluding employer-provided parking facilities from taxation has encouraged people to drive to work rather than commute by other means and encouraged employers to build parking facilities on land that might have more productive uses. (The parking subsidy has been partly offset in recent years by another fringe benefit: the exclusion for car pool subsidies and transit passes.) Similarly, excluding employer-provided health insurance has contributed to the large and growing demand for health care services. (See REV-10.)

Such exclusions are inequitable because individuals who earn compensation in cash pay more tax than others with the same total income, part of which is paid in the form of fringe benefits. That inequity is exacerbated to the extent that the higher demand for the fringe benefit by employees drives up the price for people who have to purchase it with after-tax dollars. Moreover, because the tax exclusion is worth more to taxpayers in higher tax brackets and because higher-income taxpayers also receive more fringe benefits than lower-income people, the tax savings from the exclusion are unevenly distributed among income groups.

Making all fringe benefits taxable, however, would present problems in valuing benefits and in assigning their value to individual employees. Appraisal is simpler when employers purchase goods or services and provide them to employees, but it is more difficult to determine the value of a facility, such as a gym, that employers provide. Further difficulties arise if employers must allocate to individual employees the total value of the fringe benefits they provide. For example, in cases in which an employer provides a service--such as employee discounts--it might be unfair to assign the same taxable value to all employees regardless of their level of use. Conversely, it would be administratively complex to assign values that depended on each worker's use. Further, the costs of collecting taxes on small fringe benefits (such as employee discounts) might exceed the revenue collected.

An alternative to including employer-provided benefits in income to recipients would be to impose on employers an excise tax on the value of the benefits that they provide. Those benefits would include the employer's share of health insurance (see REV-10); premiums to fund the first $50,000 of life insurance, the part that is excluded from income (see REV-11); dependent care; athletic facilities; employee discounts; and parking with a value up to the amount above which it is currently taxed. (Under current law, employees must include in taxable income in 1997 the market value in excess of $170 per month of any parking provided free of charge by an employer. The amount is indexed for

inflation each year.) A 3 percent excise tax, for example, would raise about $29 billion from 1998 through 2002. The large bulk of those revenues would come from taxing employer-paid health insurance.

Under this option, employers would need to know only their total fringe benefit costs; they would not have to place a value on the benefits paid to each employee. Because the 3 percent excise tax rate would be much lower than the tax rate on wages, this option would maintain most of the incentive for employers to provide fringe benefits instead of taxable wages.

A flat-rate excise tax on employers would be relatively more favorable to employees in higher-wage firms than including fringe benefits in employees' taxable income. Under an excise tax, the rate would not rise with the income of employees, as it would if the benefits were subject to the income tax. Within a firm, however, an excise tax can be more or less progressive depending on how the employer allocates the tax among workers.

REV-10 TAX EMPLOYER-PAID HEALTH INSURANCE

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Tax Some Employer-Paid Health Insurance						
Income Tax	6.2	9.6	10.8	12.1	13.6	52.3
Payroll Tax	4.0	6.1	6.8	7.6	8.5	33.0
Total	10.2	15.7	17.6	19.7	22.1	85.3
Tax All Employer-Paid Health Insurance, but Allow Individuals a Credit for Premiums That They or Their Employers Pay up to a Limit						
Income Tax	25.6	4.0	5.9	8.1	10.5	54.1
Payroll Tax	22.2	33.0	34.7	36.6	38.6	165.1
Total	47.8	37.0	40.6	44.7	49.1	219.2

SOURCE: Joint Committee on Taxation.

Employees do not pay taxes on income they receive in the form of employer-paid health insurance. In addition, health insurance premiums and health care costs paid through cafeteria plans are generally excludable from income and payroll taxes. Those exclusions will reduce income tax revenues and payroll tax revenues by a total of about $79 billion in 1998.

Tax Some Employer-Paid Health Insurance. One way to limit the exclusion would be to treat as taxable income for employees any employer contributions for health insurance plus health care costs paid through cafeteria plans that exceed $350 a month for family coverage and $170 a month for individual coverage. Those amounts are estimated average contributions for 1998 and would be indexed to reflect future increases in the general level of prices. The option would increase income tax revenues by about $52 billion and payroll tax revenues by about $33 billion over the 1998-2002 period. Including employer-paid health care coverage in the Social Security wage base, however, would lead to increased outlays on Social Security benefits in the future that could offset most of the added payroll tax revenues from this option over the long run.

This approach would eliminate the tax incentive to purchase additional coverage beyond the ceiling. Employees would have stronger incentives to economize in the medical marketplace, which could reduce both upward pressure on medical care prices and the provision of unnecessary or marginal services. Because the option indexes the ceiling amounts to the overall inflation rate, whereas health care costs have been rising faster than the overall rate of inflation, it could constrain health care costs even more over time. The Congress has already limited the exclusion for employer-paid group term life insurance in a similar way.

One disadvantage of limiting the tax exemption of employer-paid medical insurance premiums is the difficulty of determining when extensive coverage becomes excessive. Also, the level of coverage purchased by a given premium depends on such factors as geographic location and the characteristics of a firm's workforce. As a result, a uniform ceiling would have uneven effects. Finally, if health insurance costs continued to rise faster than the general level of prices, indexing to reflect the general level of prices would gradually reduce subsidies for employer-paid health insurance.

Taken together, those factors could increase the number of workers without health insurance.

Tax All Employer-Paid Health Insurance, but Allow Individuals a Credit for Premiums That They or Their Employers Pay up to a Limit. Another option would treat all employer-paid health insurance premiums as taxable income and disallow payments for health care costs through cafeteria plans, but offer a refundable individual income tax credit of 20 percent for health insurance premiums up to the amounts described above for family and individual coverage. The credits would be available to taxpayers whether or not their employers paid for or sponsored the coverage. The option would increase income tax revenues by about $54 billion over the 1998-2002 period. That amount would be the net result of about $245 billion in revenues if there was no credit, less about $191 billion in new income tax credits. The income tax gain occurs disproportionately in the first year because many taxpayers would not adjust their withholding to take account of the credit. Payroll tax revenues would rise substantially--by about $165 billion over the same period. But as under the first option, increases in Social Security outlays could offset most of the added payroll tax revenues in the long run.

In addition to eliminating the tax incentive for excessive health insurance, as under the first option, this option would offer the subsidy to all taxpayers who purchased health insurance, regardless of their employment status. Moreover, the subsidy per dollar of eligible health insurance premiums would no longer be relatively higher for taxpayers with higher marginal tax rates (and higher incomes). Limiting the amount of insurance eligible for credits to a fixed level, however, creates all of the same problems as in the first option. Moreover, by extending the subsidy to individual purchases of insurance, the option might induce relatively healthy employees to buy insurance outside the workplace. Consequently, insurance would become more expensive for the remaining employees, especially in small firms, and that rise in cost could cause more firms to terminate coverage.

REV-11 TAX EMPLOYER-PAID LIFE INSURANCE

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Income Tax	1.2	1.8	1.9	1.9	2.0	8.8
Payroll Tax	0.8	1.2	1.3	1.3	1.3	5.9
Total	2.0	3.0	3.2	3.2	3.3	14.7

SOURCE: Joint Committee on Taxation.

Tax law excludes from taxable income the premiums that employers pay for group term life insurance but limits the exclusion to the cost of the first $50,000 of insurance. The exclusion is not available to the self-employed. Employer-paid life insurance is the third most expensive tax-advantaged fringe benefit (after health insurance, discussed in REV-10, and pensions, discussed in REV-12 and REV-13). Including employer-paid premiums in taxable income would add $8.8 billion to income tax revenues and $5.9 billion to payroll tax revenues from 1998 through 2002.

Like the tax exclusion for other employment-based fringe benefits, the tax exclusion for life insurance creates a subsidy for the fringe benefit, which causes people to purchase more life insurance than they would if they had to pay the full cost for insurance. Furthermore, the tax exclusion allows workers whose employers purchase life insurance for them to pay less tax than workers who have the same total compensation but must purchase insurance on their own (see REV-09). In addition, the value of employer-paid life insurance, unlike some other fringe benefits, could be accurately measured and allocated. Employers could report the premiums they paid for each employee on the employee's W-2 form and compute withholding in the same way as for wages. Indeed, employers already withhold taxes on life insurance premiums that fund death benefits above the $50,000 limit.

A tax subsidy to provide life insurance might be called for, however, if people buy too little life insurance because they systematically underestimate the financial hardship to their families resulting from their death. But whether people purchase too little insurance for that reason is unclear. Moreover, even if it was clear, a more efficient way of allocating resources might be to provide a direct tax subsidy to all purchasers of life insurance and not just limit the subsidy to insurance provided by employers.

REV-12 DECREASE LIMITS ON CONTRIBUTIONS TO QUALIFIED PENSION AND PROFIT-SHARING PLANS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Decrease Limits for Defined Benefit Plans to the Social Security Wage Base (With equivalent reductions for defined contribution plans)	0.5	1.4	1.4	1.5	1.5	6.3
Decrease the Limit for Deferrals in Salary Reduction Plans to $4,000	0.2	0.5	0.6	0.6	0.6	2.5

SOURCE: Joint Committee on Taxation.

Saving for retirement through employer-provided qualified pension and profit-sharing plans provides two tax advantages: it exempts from taxes the investment income earned by the assets in qualified plans, and it defers tax on contributions to qualified plans until retirement, when an employee's marginal tax rate is often lower.

Decrease Limits on Employer Contributions. Section 415 of the tax code establishes limits on the benefits that an employer can fund in qualified plans for any employee. The limits depend on the type of plan the employer offers.

Defined contribution plans specify how much the employer will contribute for each employee's retirement--for example, 5 percent of pay. The employee's pension depends on how much the employee's retirement fund accumulates by the time he or she retires. Current law limits annual contributions to such plans to 25 percent of compensation or $30,000, whichever is less.

Defined benefit plans specify the pension amount employees will receive in retirement, which is usually a percentage of preretirement earnings. Employers adjust their annual contributions so that enough will accumulate by the time the employee retires to pay the promised pension. Current law limits contributions to defined benefit plans so that annual benefits for pensions that begin at age 65 are no more than 100 percent of preretirement wages or a fixed amount ($125,000 in 1997), whichever is less. The tax law reduces that limit on an actuarial basis for pensions that begin at an earlier age. When an employer sponsors both types of plans, a higher limit applies--the lesser of 140 percent of wages or $160,000 for 1997.

The limits on employer contributions are intended to limit the size of the tax benefits received by highly paid people. Those people are better able to provide adequately for retirement without the full tax benefits and may use pensions to shelter nonretirement savings from taxation.

The main argument for lowering the current limits on contributions is that they allow the funding of pensions far higher than the preretirement earnings of most workers. Three percent of people who worked full time throughout 1995 earned as much as $100,000. Yet current limits allow the funding of pensions up to $125,000. Workers who accrue pensions that large are unlikely to need the full tax advantage to provide adequately for their retirement. Limiting funding for de-

fined benefit plans to amounts necessary to pay benefits equal to the Social Security wage base ($65,400 in 1997), and making proportionate reductions in limits for defined contribution plans, would raise about $6 billion from 1998 through 2002. Revenues would increase because more employment income would be subject to taxes. Those limits would still be higher than the earnings of all but about 10 percent of full-time, year-round workers.

One argument against reducing the limits is that it would make participation less attractive to high-income business owners and top managers and thus might discourage them from sponsoring such plans for both themselves and their employees. Although higher-paid managers and owners might not need tax-advantaged pension plans to save adequately for retirement, their employees might. A further argument against reducing the limits is a concern that national saving is too low. Limiting incentives for pension saving could reduce total saving.

Limit 401(k) Deferrals to $4,000. Section 401(k) of the tax code allows employees to choose to receive lower current (taxable) compensation and defer the remainder of compensation as a contribution to an employer retirement plan. Similar arrangements are possible for some workers in the nonprofit sector (403(b) tax-sheltered annuities), federal workers, and workers enrolled in some simplified employer plans (SEPs). Starting in 1997, small employers are able to establish a simplified retirement plan called the savings incentive match plan for employees (SIMPLE) under section 408(p), and a wider range of nonprofit organizations will be allowed to use salary deferral plans.

Section 402(g) specifies indexed limits for employee deferrals. In 1997, the limit for deferrals to 401(k) plans, 403(b) annuities, SEPs, and the federal plan is $9,500. Section 401(p) limits contributions to the new SIMPLE plan to $6,000 in 1997. Limiting deferrals in all plans with cash or deferred arrangements to $4,000 in 1998, and indexing that limit thereafter, would raise $2.5 billion in 1998 through 2002.

Lowering the limit would affect higher-income workers who are likely to provide adequately for their own retirement without the tax incentive. In addition, many employers have added 401(k) plans on top of other pension plans that, coupled with Social Security, already meet the basic retirement needs of employees. Those 401(k) plans provide supplementary saving for employees who prefer higher retirement income. Thus, limiting contributions to 401(k) plans would not threaten the basic retirement security of those workers.

Alternatively, higher limits provide a greater incentive for employers to initiate the plans, which benefit employees at all income levels. In particular, 401(k) plans appeal to small employers who have traditionally not established pension plans. Lower limits may discourage small employers from offering what could be the only retirement benefit available to their employees. Lowering limits on those plans and not on other plans encourages traditional pensions, which are primarily defined benefit plans. Unlike defined benefit plans, 401(k) plans and other defined contribution plans do not discriminate against workers who change employers or drop out of the workforce temporarily. In addition, the voluntary nature of plans with cash or deferred arrangements allows workers who have spouses without coverage to save more for retirement than other workers.

Other Funding Limit. In addition to the section 415 and section 402(g) limits described above, section 401(a)(17) limits the amount of compensation that can be considered in calculating an employee's pension benefits. The Omnibus Budget Reconciliation Act of 1993 reduced that compensation limit from $235,840 in 1993 to $150,000 in 1994 and provided for indexing the limit in subsequent years. The limits in section 415 and section 402(g) primarily restrict pension benefits for high-income employees with generous pension plans. The compensation limit primarily restricts pension benefits for all high-income employees.

REV-13 IMPOSE A 5 PERCENT TAX ON INVESTMENT INCOME OF PENSION PLANS AND INDIVIDUAL RETIREMENT ACCOUNTS

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	7.7	12.9	13.6	14.3	14.7	63.2

SOURCE: Joint Committee on Taxation.

Under normal income tax rules, the interest earnings of savings accounts are fully taxable each year. The absence of that annual tax is one of the tax advantages for employer pensions and individual retirement accounts (IRAs). Instituting a tax at a low rate on the earnings of pension funds and IRAs would reduce the size of that advantage. A 5 percent tax rate would raise about $63 billion between 1998 and 2002. (The other tax advantage of pensions and IRAs is the deferral of tax on contributions until retirement, when an employee's marginal tax rate is often lower.)

The tax advantages for pensions and IRAs encourage firms and workers to provide for retirement. Most studies of pensions find that they increase saving; the studies of IRAs are less conclusive. Although the tax advantages promote a public objective, many people receive little or no benefit from them. In 1993, for example, 47 percent of workers neither participated in a pension plan nor contributed to an IRA. The largest pension benefits go to higher-paid workers or to workers with long-term employment at large firms.

Imposing a tax at a low rate on pension and IRA earnings would reduce the tax advantage of saving for retirement through those vehicles. Such a tax would reduce the use of pensions and IRAs and probably result in less retirement saving. The smaller tax advantage for pensions and IRAs would, however, make the tax burden of employees with pensions and IRAs and those without them slightly more equal. It would also increase taxes relatively more for higher-paid workers.

Taxing pension and IRA earnings would affect more taxpayers than would setting lower limits on employer contributions to pension plans (see REV-12). Lowering the contribution limits would increase taxes on a small number of the highest-paid workers and raise taxes substantially for some of them. Taxing pension and IRA earnings would affect workers with a wider range of earnings. Moreover, because it would affect so many more workers, it could raise more revenue with a smaller impact for each employee who pays more tax.

Taxing the annual earnings of pension funds and IRAs would encourage fund managers to shift their investments from assets that yield income toward assets that appreciate in value, such as growth stocks and real estate, because they can defer tax on capital gains until realization (see REV-24). To obtain that tax deferral, however, pension funds would have to invest in riskier assets. Although that portfolio shift would reduce the security of workers' retirement funds, it would make it easier for risky enterprises to obtain funding.

Legislative proposals introduced in recent years would have expanded access to IRAs and broadened their use beyond retirement saving. Taxing the investment income of IRAs runs counter to the objective of expanding IRA use, but it would also mitigate the revenue loss from such an expansion.

REV-14 TAX THE INCOME-REPLACEMENT PORTION OF WORKERS' COMPENSATION AND BLACK LUNG BENEFITS

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	1.4	3.9	4.0	4.1	4.2	17.6

SOURCE: Joint Committee on Taxation.

Current law exempts workers' compensation and Black Lung benefits from income taxation. Taxing the portion of those benefits that replaces the income employees lose from work-related injuries or black lung disease would increase revenues by $17.6 billion from 1998 through 2002. The remaining portion of benefits, which reimburses employees for their medical costs (about 40 percent), would continue to be exempt from taxation.

Taxing the income-replacement portion of workers' compensation and Black Lung benefits would make the tax treatment of those entitlement benefits comparable to the treatment of unemployment benefits and the wage-replacement benefits that employers provide through sick pay and disability pensions. It would also improve work incentives for disabled workers who are able to return to work. (Under current law, the after-tax value of the wages they are able to earn may be less than the tax-free benefits they receive while disabled.)

An argument against taxing such benefits is that legal or insurance settlements for non-work-related injuries are not taxable, even if a portion of them reimburses lost income. Hence, taxing workers' compensation benefits would treat those two types of compensation inconsistently.

Furthermore, if the current levels of wage-replacement benefits were established under the assumption that they would be untaxed, this option would reduce benefits below desired levels. Enacting the option, therefore, might lead to efforts to increase benefits, thereby reducing the intended deficit reduction.

REV-15 INCREASE TAXATION OF SOCIAL SECURITY AND RAILROAD RETIREMENT BENEFITS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Tax 85 Percent of Benefits for All Recipients	9.8	25.0	26.1	27.1	28.2	116.2
Tax 85 Percent of Benefits for Recipients with Income Above $44,000 (Couples) and $34,000 (Individuals), and Tax 50 Percent of Benefits for All Other Recipients	4.9	12.4	12.9	13.4	14.0	57.6
Tax 85 Percent of Benefits for Recipients with Income Above $32,000 (Couples) and $25,000 (Individuals)	0.5	1.0	1.0	1.1	1.1	4.7

SOURCE: Joint Committee on Taxation.

Social Security and Railroad Retirement (Tier I) together constitute the federal government's largest entitlement program. Most benefits are not subject to tax. Under current law, a taxpayer first calculates his or her combined income, which is the sum of adjusted gross income (AGI), nontaxable interest income, and one-half of Social Security and Tier I benefits. If a taxpayer's combined income exceeds a fixed threshold, he or she includes a fraction of benefits in AGI. The thresholds at which up to 50 percent of benefits are subject to tax are $25,000 for single returns and $32,000 for joint returns. Above a second set of thresholds, $34,000 (single) and $44,000 (joint), up to 85 percent of benefits become subject to tax. The additional revenues from the higher thresholds go to the Medicare trust fund, whereas all other revenues from taxing Social Security benefits go to the Social Security retirement and disability trust funds.

About one-fourth of households receiving Social Security pay income tax on some portion of their benefits, and about three-fifths of those households pay tax on 85 percent of their benefits. Because the thresholds remain fixed over time, as nominal incomes increase, the percentage of households that pay tax on benefits will grow to 32 percent in 2002. Bills to remove the 85 percent rate were proposed in 1996 but not enacted.

The first option would eliminate the income thresholds entirely and would require all beneficiaries to include 85 percent of their benefits in their adjusted gross income. It would raise $116 billion from 1998 through 2002. Eliminating the income thresholds would cause many more, but not all, Social Security recipients to pay income tax on their benefits. In addition to the thresholds, the tax code through personal exemptions, the regular standard deduction, and an additional standard deduction for the elderly protects the income of lower-income elderly households from being taxed. Eliminating the thresholds on taxing benefits would nearly triple the share of couples and individuals paying tax on their benefits from the current 25 percent to 70 percent.

Eliminating the thresholds would reduce tax disparities among middle-income households. Social Security beneficiaries receive a tax preference not available to other taxpayers because they can exclude a portion of their income--Social Security benefits below the thresholds--from AGI. As a result, the average income tax rate that middle-income elderly families pay is less than the tax rate that nonelderly families with comparable income pay under current law.

The second option would not change the treatment of couples with combined income above $44,000 and

individuals with combined income above $34,000--they would still be taxed on up to 85 percent of their benefits--but it would require all other recipients to include 50 percent of benefits in their adjusted gross income. That option would raise $58 billion from 1998 through 2002. Couples with combined income below $32,000 and individuals with combined income below $25,000 would be added to the beneficiaries whose benefits are subject to tax. Almost all beneficiaries currently taxed on up to 50 percent of their benefits--couples with combined income between $32,000 and $44,000 and individuals with combined income between $25,000 and $34,000--would be unaffected. (Because the taxation of benefits is phased in under current law, some couples with combined income just above $32,000 and singles with income just above $25,000 are now taxed on less than a full 50 percent of their benefits.)

The final option would keep the current-law income threshold of $32,000 for couples and $25,000 for individuals, while including up to 85 percent of benefits for all taxpayers above that threshold. The option would raise $4.7 billion from 1998 through 2002. It would, moreover, almost exclusively affect couples with modified income between $32,000 and $44,000, and individuals with income between $25,000 and $34,000.

Increasing the percentage of benefits that are taxable from 50 percent to 85 percent would make the treatment of Social Security roughly similar to that of contributory pension plans. Workers receiving benefits from contributory plans pay income tax on the excess of benefits over their own contributions. Social Security actuaries estimate that among workers now entering the labor force, employee-paid payroll taxes will represent 15 percent of expected benefits for high-earning, unmarried workers and a lower percentage for all other workers. Thus, 85 percent is the minimum fraction of benefits in excess of past contributions. However, a lower rate might be appropriate for two reasons. First, benefits will have to be cut or taxes raised at some point in the future to restore the long-run balance of Social Security. Either change would raise taxes as a share of benefits above 15 percent for some workers. Second, keeping the inclusion rate at 50 percent would make the treatment of Social Security equivalent in terms of present value to that of noncontributory pensions.

Increasing the tax on benefits would reduce the net benefits of retirees compared with what some people consider to be the implicit promises of the Social Security and Railroad Retirement programs at the time recipients were working. The government has, however, made numerous changes in the Social Security and Railroad Retirement programs over time, including changing the benefit formula, introducing partial taxation of benefits, and raising payroll tax rates to finance the programs.

Increased taxation of Social Security benefits is one way to apply a means test to those benefits. As an alternative to expanding taxation, the government can reduce benefits from those programs by changing the benefit formula (see ENT-31 through ENT-34), reducing cost-of-living adjustments (see ENT-44), or including benefits in a broadly based means test of multiple entitlement programs (see ENT-45).

REV-16 TAX INVESTMENT INCOME FROM LIFE INSURANCE AND ALL ANNUITIES

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	7.8	19.1	21.5	23.7	25.9	98.0

SOURCE: Joint Committee on Taxation.

Life insurance policies often combine features of both insurance and tax-favored savings accounts. In the early years of whole life insurance and similar policies, annual premiums exceed the annual cost of insurance. As the excess premiums accumulate, they earn investment income, which is then available to pay the cost of future insurance, provide part of a death benefit, or provide a disbursement to the policyholder if the policy is voluntarily canceled.

The investment income, sometimes called "inside buildup," receives special tax treatment under current law compared with the interest income from other investments. It is exempt from taxation when used to pay the cost of future life insurance. It is also tax-exempt to the beneficiary or, with some tax planning, to the estate of the insured person when it is paid as part of a death benefit. The accumulated investment income is taxable to the policyholder when he or she voluntarily cancels a policy and receives a disbursement. Even when the investment income is ultimately taxable, however, the tax deferral can be favorable to the policyholder. The interest income from other investments, such as taxable bonds, is subject to tax as it accrues, even when interest is not paid to the investor until the bond matures.

Life insurance companies also sell annuities, which have features of both insurance and tax- favored savings accounts. Life annuities promise periodic payments to the annuitant as long as he or she lives. Those payments provide insurance against the possibility that the annuitant will outlive his or her assets. By nature, however, annuities are also saving vehicles because annuity premiums are paid in return for annuity benefits received at a later date. Because premiums are often paid long before benefits are received, the benefits must include a return on investment in order for an annuity to be financially attractive.

For tax purposes, annuity benefits are divided into two parts--a return of principal and investment income. Only the investment income is subject to tax. Although investment income accrues over the life of a contract, it is not included in taxable income until benefits are paid. As with whole life insurance and other similar policies, such tax deferral can increase the after-tax return to the investor significantly compared with alternative investments such as taxable bonds and certificates of deposit from which interest income is taxable as it accrues.

Tax Investment Income Annually. Under this option, policyholders would include the investment income from life insurance policies and annuities in taxable income as it accrued. Insurance companies would report the accrued investment income to a policyholder or annuitant annually. Life insurance disbursements and annuity benefits would no longer be taxable as they were paid. Making the investment income taxable in that way would raise almost $100 billion in 1998 through 2002. Investment income from annuities purchased as part of a qualified pension plan or qualified individual retirement account would still be tax-deferred until benefits were paid.

Taxing the investment income from life insurance and annuities would equalize their tax treatment with the tax treatment of similar investments. The investment income from life insurance and annuities is tax-deferred, but the income from an ordinary savings account or taxable bond is taxed as it accrues. Alterna-

tively, the tax deferral for life insurance and annuities is consistent with the tax deferral currently allowed for capital gains income.

A tax incentive to purchase life insurance is desirable if people systematically underestimate the financial hardship on spouses and families caused by their own death. Such shortsightedness could cause them to buy too little life insurance. Similarly, it might cause people to buy too little annuity insurance to protect them against outliving their assets. But it is not currently known whether people would buy too little insurance without the tax incentive, or the extent to which the tax incentive increases the amount of life insurance or annuity coverage. If the incentive is justified to correct for people's shortsightedness rather than subsidize the inside buildup, a better policy might be to subsidize life insurance directly by allowing a tax credit or partial deduction for insurance premiums. Annuities receive other tax incentives through the special tax treatment of pensions and retirement savings.

A tax preference for inside buildup in life insurance policies and annuities has an uncertain effect on saving. It may encourage saving because it increases people's income when they are older for each dollar they save when they are younger. The tax preference might, however, reduce saving because it also enables people to save less when they are younger without reducing their expected income when they are older.

Use a More Limited Option. Some annuity contracts sold by life insurers provide little or no insurance against outliving assets. For example, a contract may guarantee to pay a minimum total benefit regardless of how long the annuitant lives. Other annuities simply make predetermined benefit payments over a fixed term. Such "term-certain" annuities are simply investments and are essentially identical to bonds, bank certificates of deposit, or money market mutual funds.

Under a more limited option, an individual's taxable income would include the annual accrual of investment income only from annuity benefits that are guaranteed to exceed a certain amount or to be paid over a fixed period, regardless of how long the annuitant lives. The insurance companies would annually report to individuals the amounts to be included as taxable income. To lessen the burden of compliance, however, no reporting or accrual taxation would be required when the term-certain portion of the value of an annuity is less than one-third of its value. Annuities purchased as part of a qualified pension plan or qualified individual retirement account would also be exempted. This option is similar to a proposal made by the Bush Administration in its 1993 budget. An estimate of the option's budgetary effect is not available.

REV-17 TAX A PORTION OF THE INSURANCE VALUE OF MEDICARE BENEFITS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
			With Income Thresholds			
Tax Hospital Insurance Only	2.7	7.3	8.4	9.4	10.7	38.5
Tax Supplementary Medical Insurance Only	1.4	3.7	4.3	4.8	5.5	19.7
Tax Both	4.3	11.3	13.0	14.7	16.7	60.0
			Without Income Thresholds			
Tax Hospital Insurance Only	3.9	13.4	14.8	16.3	17.8	66.2
Tax Supplementary Medical Insurance Only	1.8	6.3	7.2	8.1	9.0	32.4
Tax Both	6.1	21.2	23.8	26.4	29.0	106.5

SOURCE: Joint Committee on Taxation.

Like Social Security, Hospital Insurance (HI) benefits under Medicare are financed by payroll taxes that are earmarked for a trust fund. Social Security benefits, however, are partially taxable for higher-income people, whereas the value of HI benefits is not subject to tax. In addition, the Supplementary Medical Insurance (SMI) component of Medicare is heavily subsidized: premiums cover only about one-fourth of the benefits paid, and that share is projected to decline to less than one-sixth over the next decade. This option would tax HI the same way Social Security is taxed under current law or under the tax option in REV-15 and would partially tax SMI.

The first option would treat the insurance value of Medicare much like Social Security benefits, although the tax would be imposed on the average insurance value of in-kind Medicare benefits, not on the dollar value of benefits actually received. In this option, 85 percent of the value of HI and 75 percent of the value of SMI would be included in adjusted gross income (AGI) for taxpayers with combined income (AGI plus nontaxable interest income plus one-half of Social Security, Railroad Retirement, and Medicare benefits) of more than $34,000 for single returns and $44,000 for joint returns. For taxpayers with combined income below those thresholds, but above $25,000 (single) and $32,000 (joint), 50 percent of the insurance value of both HI and SMI would be included in AGI. Taxpayers with lower income would have no additional tax liability. Because the thresholds are fixed, inflation would cause a larger fraction of Medicare insurance benefits to become taxable over time.

With those income thresholds, the HI tax alone would increase federal revenues by $38.5 billion from 1998 through 2002. The SMI tax alone would yield $19.7 billion over the five-year period. If both taxes were imposed simultaneously, revenues would be about $60 billion higher over five years. The combined tax would generate more revenues than the sum of the HI and SMI taxes because some taxpayers would be subject to higher tax rates as a result of the increase in AGI. Also, more enrollees would have income above the threshold when both components are included.

The second option would include 85 percent of the insurance value of HI benefits and the subsidy component of SMI (about 75 percent) in AGI for all taxpayers. Without an income threshold, the HI tax alone would increase federal revenues by $66.2 billion over the 1998-2002 period. Revenues from the SMI tax

alone would be $32.4 billion over the five-year period. If both taxes were imposed simultaneously, revenues would be $106.5 billion higher over the five-year period.

Earmarking revenues from taxing HI benefits for the HI trust fund would delay the projected deficit of the trust fund in 2001. A tax on SMI benefits would shift some SMI costs from taxpayers to enrollees. Using income thresholds would leave lower-income enrollees unaffected. In fact, because many beneficiaries do not have to pay income taxes, this proposal would affect only about half of enrollees in 1998 even if no income thresholds were used. Furthermore, since this option would use the mechanism already in place for taxing Social Security benefits, it would be straightforward to administer.

Unlike the tax on Social Security benefits, this tax would be imposed on the insurance value of in-kind benefits rather than on the dollar benefits actually received. Some people might object that the additional income does not generate cash with which to pay the tax liability. (Basing the tax on actual benefits received, however, has little to recommend it because the tax would then be directly related to the health care costs of enrollees. Such a tax would reduce the insurance protection Medicare is intended to provide.) In addition, the actual value of insurance provided under Medicare varies among households based on age, health status, and whether they have other health insurance.

Thus, including a fixed imputed premium in income might be viewed as unfair. The approximately 15 percent of enrollees in or above the 28 percent tax bracket would face a tax increase averaging about $1,350 in 1998 for individuals and about $2,750 for couples with two enrollees, assuming the combined tax was imposed with no income thresholds. In addition, more households would have to pay tax on Social Security benefits if the definition of combined income was expanded to include Medicare benefits.

REV-18 EXPAND MEDICARE AND SOCIAL SECURITY COVERAGE

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Expand Medicare Coverage to Include State and Local Government Employees Not Now Covered	1.1	1.5	1.5	1.4	1.4	6.9
Expand Social Security Coverage to Include All New State and Local Government Employees	0.3	1.2	2.2	3.3	4.3	11.3

SOURCE: Congressional Budget Office.

NOTE: Estimates do not include the effect of any increases in benefit payments that would result from the option. They would be small over this five-year period. Estimates are net of reduced income tax revenues.

Certain groups of federal, state, and local government employees are not covered under the Medicare and Social Security programs, despite recently expanded coverage. The Tax Equity and Fiscal Responsibility Act of 1982 required all federal employees to pay Medicare payroll taxes beginning in 1983, and the Social Security Amendments of 1983 required federal employees who began work after December 31, 1983, to pay Social Security payroll taxes. The Consolidated Omnibus Budget Reconciliation Act of 1985 mandated that state and local employees who began work after March 31, 1986, pay Medicare payroll taxes. The Omnibus Budget Reconciliation Act of 1990 expanded Social Security and Medicare coverage to include state and local government employees not covered by any retirement plan.

Under current law, many state and local employees will qualify for Social Security and Medicare benefits based on other employment in covered jobs or their spouse's employment. Those employees will thus receive benefits in return for a smaller amount of lifetime payroll taxes than are paid by people who work continuously in covered employment. That inequity is especially apparent for Medicare benefits: one out of six state and local employees is not covered through his or her employment, but 85 percent of those not covered receive Medicare benefits through their spouse or because of prior work in covered employment. Inequitable treatment is less of a problem in the case of Social Security benefits because benefits are based on a formula that only includes wages earned in employment covered by Social Security and because the benefit formula is adjusted for retired government employees who have worked a substantial portion of their career in employment not covered by Social Security.

Requiring all state and local employees to pay Medicare payroll taxes, and all new state and local employees to pay Social Security payroll taxes, would make coverage of state and local employees resemble that of federal employees. That broader coverage would reduce the inequity from the high benefits those employees receive in relation to payroll taxes paid. Expanding Medicare and Social Security payroll taxes to include more state and local employees would increase the government's liability for future program benefits. The additional revenues, however, would most likely more than offset increased benefits permanently.

Expand Medicare Coverage to Include State and Local Government Workers Not Now Covered. Expanding Medicare coverage to include state and local government employees who began work before April 1, 1986, would raise about $7 billion from 1998 through 2002. The annual revenue gain would decline gradually

because the number of employees who were hired before April 1986 and remain on the payrolls of state and local governments declines over time.

Expand Social Security Coverage to Include All New State and Local Government Workers. Retirement coverage for state and local government employees may be provided by a public-employee program, the Social Security program, or a plan that integrates both programs. Expanding Social Security coverage to include all new state and local government employees would raise about $11 billion from 1998 through 2002, although in the long run higher Social Security benefit payments would offset a portion of the extra revenue. The annual revenue gain would grow rapidly--to $4.3 billion by 2002--because the pool of new employees would grow rapidly.

How states and localities revised their pension plans in response to mandatory coverage would determine which employees gained and lost from that change, but requiring coverage of new state and local government employees would probably benefit many employees who spent only part of their career in the government sector. First, because of the portability of coverage, newly hired employees might find it easier to qualify for disability and survivors' benefits under Social Security than under many public-employee benefit programs. Second, unlike many public-employee plans, state and local employees would not lose Social Security eligibility if they change jobs before they are vested. Third, because Social Security benefits are calculated on the basis of inflation-adjusted wages, many employees who worked only when they were young might receive more generous retirement benefits from Social Security than from public pension plans.

State and local governments would have to pay the employer's share of Social Security taxes on new employees if coverage was made mandatory. Because state and local government participation in Social Security is now voluntary, those states with a low percentage of covered employees would bear more of the cost of expanded mandatory coverage, including the cost of setting up the payment system.

REV-19 INCREASE THE PAYROLL TAX RATE FOR MEDICARE HOSPITAL INSURANCE BY ONE PERCENTAGE POINT

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	26.4	36.9	38.6	40.5	42.4	184.8

SOURCE: Congressional Budget Office.

NOTE: Estimates are net of reduced income tax revenues.

Medicare Part A, which is also known as the Hospital Insurance (HI) program, pays for hospital care and related medical expenses for the elderly. The program is financed by a 1.45 percent payroll tax on employees and employers, which results in a combined payroll tax rate of 2.9 percent. Increasing the combined HI tax rate by 1 percentage point to 3.9 percent would generate about $185 billion in revenues from 1998 through 2002.

The Congress has taken a number of steps in recent years to increase revenue to the trust fund. The Omnibus Budget Reconciliation Act of 1990 more than doubled the maximum amount of earnings subject to the HI tax, from $51,300 in 1990 to $125,000 in 1991. The Omnibus Budget Reconciliation Act of 1993 eliminated the taxable maximum earnings starting in 1994 and allocated to the Hospital Insurance Trust Fund revenue resulting from an increase in the tax on Social Security benefits.

However, despite those recent increases in earmarked revenue, the Congressional Budget Office projects that the assets of the Hospital Insurance Trust Fund will be completely depleted during 2001. In its final report issued in 1995, the Bipartisan Commission on Entitlement and Tax Reform discussed a variety of HI payroll tax increases that would improve the trust fund's actuarial balance. Increasing the combined HI tax rate by 1 percentage point to 3.9 percent would lengthen the solvency of the trust fund beyond 2007.

The Congress has recently considered a variety of options to restructure Medicare and improve its long-term solvency. Increasing the HI tax rate is only one possibility. For a discussion of the types of options available, see Chapter 5 of this report.

REV-20 INCREASE THE MAXIMUM TAXABLE EARNINGS FOR THE SOCIAL SECURITY PAYROLL TAX

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	13.1	19.6	20.6	21.5	22.6	97.4

SOURCE: Congressional Budget Office.

NOTE: Estimates are net of reduced income tax revenues.

Social Security--composed of the Old-Age, Survivors, and Disability Insurance (OASDI) programs--is financed by a payroll tax on employees, employers, and self-employed individuals on earnings up to a specified maximum. The maximum amount of taxable earnings is increased automatically each year in proportion to the increase in average annual earnings. For 1997, the maximum taxable earnings are $65,400 and are projected to increase to $68,400 in 1998. Approximately 87 percent of earnings in employment covered by the programs fall below the maximum. Increasing the maximum taxable earnings to $100,000 in 1998, and continuing to index them for average growth in earnings thereafter, would place about 90 percent of total covered earnings below the maximum and would generate about $97 billion from 1998 through 2002.

When Social Security began in 1937, about 92 percent of earnings in employment covered by the program were below the maximum. That percentage gradually declined over time as the earnings of workers grew, but the maximum increased only occasionally when the Congress enacted specific increases to it. By 1978, about 84 percent of total covered earnings were below the maximum. In the 1977 Social Security Amendments, the Congress provided for increases in the earnings base in 1979, 1980, and 1981 with the intent of raising the taxable percentage of covered earnings to 90 percent. Since achieving that percentage in 1982, the taxable maximum has automatically increased each year by the increase in average wages.

Despite indexing the maximum amount of taxable earnings, the taxable fraction of covered earnings has slipped below 90 percent over the past decade as a result of faster-than-average growth in the earnings of the highest earners. By 1995, the taxable portion was about 87 percent. Increasing the maximum taxable earnings could restore the percentage to its 1982 level. In its final report issued in 1995, the Bipartisan Commission on Entitlement and Tax Reform discussed this option as a means of improving the actuarial balance of the OASDI trust funds.

Increasing revenues that are earmarked for Social Security would improve the solvency of the trust funds. Under the intermediate assumptions of the funds' Board of Trustees, total income is expected to exceed expenditures only through 2019, and the combined trust fund will be completely exhausted by 2029. Increasing the maximum taxable earnings would improve the long-range solvency of the system by pushing back both of those dates, thereby helping the system move closer to actuarial balance.

Because individuals with income above the maximum amount of taxable earnings do not pay the tax on all of their earnings, they pay a lower share of their total earnings in payroll taxes than do individuals with total earnings below the maximum. Increasing the maximum taxable earnings would raise payroll taxes for high-income earners and make the payroll tax more progressive. Although that change would also entitle individuals with earnings above the old maximum to higher retirement benefits, those additional benefits would be low relative to the additional taxes they would have to pay.

Increasing the maximum taxable earnings would reduce the additional return from working for individuals whose earnings are above the old maximum, but below the new maximum, because those earnings would

become subject to the payroll tax. Those workers would have an incentive to work less or to take more compensation in the form of fringe benefits that are not subject to the payroll taxes. Increasing the maximum taxable earnings would not reduce the return from work for employees with earnings in excess of the new maximum. Those employees would not have an incentive to reduce their earnings. Instead, they would have some incentive to work more to maintain the same level of after-tax income.

REV-21 CURTAIL TAX SUBSIDIES FOR EXPORTS

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	2.3	4.8	5.2	5.7	6.1	24.1

SOURCE: Joint Committee on Taxation.

The tax code subsidizes U.S. exports in two important ways. First, the allocation of income between domestic and foreign business activities under the "title passage" rule routinely allows U.S. multinational companies to use excess foreign tax credits to offset about half of the U.S. tax on their export income by characterizing it as foreign-source income. Second, the tax rules for foreign sales corporations (FSCs) offer U.S. companies an opportunity to exempt about 15 percent of their export income from U.S. tax by characterizing it as income of a foreign subsidiary that is not effectively connected with U.S. trade or business.

Sourcing Rules for Sales of Inventory. U.S. companies generally pay U.S. tax on their worldwide income, but they may claim a foreign tax credit. The foreign tax credit reduces the tax that U.S. companies owe on foreign-source income by the amount of income tax they pay abroad. To prevent the foreign tax credit from offsetting domestic-source income, the tax code limits the credit to the amount of tax owed on foreign-source income. When foreign tax payments exceed the U.S. tax on foreign-source income, U.S. companies accrue excess foreign tax credits that they cannot currently use. U.S. companies retain those excess credits to offset taxes owed on future income from foreign sources, but only for five years.

In allocating worldwide income between domestic and foreign sources, rules for sourcing determine how fully U.S. companies can use their foreign tax credits to reduce their U.S. tax liability. For example, when a corporation has excess foreign tax credits, treating a dollar of income as foreign-source income instead of domestic -source income allows the corporation to use excess credits that might otherwise expire to reduce the U.S. tax on its worldwide income by about 35 cents.

Sales income is classified for tax purposes as domestic or foreign source according to a complex set of sourcing rules that take account of the residence of the seller, the place of sale, the location of the seller's business activities, and the presence of any foreign tax on the sales income. Under a particular rule known as the "title passage" rule, the income of a U.S. company from the sale of inventory is sourced according to the place of sale. So when inventory is sold abroad, the income from the sale is deemed foreign-source income, regardless of where the inventory was purchased and regardless of whether the income was subject to foreign tax. When a U.S. company produces the inventory in the United States and markets it abroad, half of the income is typically classified as foreign source on the basis of the title passage rule and half is classified based on the location of the production activity. Assuming the company has excess foreign tax credits to offset the tax on its foreign-source income, the 50-50 allocation effectively exempts half of the export income from U.S. tax.

If the title passage rule allows a company with excess foreign tax credits to classify more of its export income as foreign source than it could justify solely on the basis of the location of its business activities, then the company receives an implicit export subsidy.

Foreign Sales Corporations. According to a decision by the governing council of the General Agreement on Tariffs and Trade (GATT), export income can be exempt from U.S. tax only if the economic activity that produces the income takes place outside the United States. In response to the GATT decision, the tax code was amended by the Congress to allow U.S. companies to charter FSCs in low-tax countries and either supply goods to the FSCs for resale abroad or pay commissions to them on export sales. Although the FSCs are

largely paper corporations with very few employees, the Congress believes that they have enough foreign presence and economic substance to meet GATT's requirements to exempt export income.

Under the tax code, when a U.S. company sells exports through an FSC, about 23 percent of the total income from production and marketing is attributed to the FSC and about 65 percent of the FSC's export income is exempt from U.S. tax. The exempt income, which is approximately 15 percent of the income from the sale, remains free from U.S. tax when the U.S. company receives it as a dividend from the FSC.

Economic Effects of Export Subsidies. Export subsidies increase investment and employment in export industries, but do not increase the overall levels of domestic investment and domestic employment. Stimulating exports increases the demand for U.S. dollars by foreigners, which raises the value of the dollar and lowers the cost of imports, causing imports to increase. In the long run, export subsidies increase imports as much as exports. As a result, investment and employment in import-competing industries in the United States would decline about as much as they increased in the export industries.

Export subsidies reduce domestic welfare by distorting the allocation of economic resources at home and abroad. The subsidized production of export goods in the United States partially displaces the more efficient production of those goods abroad. Moreover, the subsidies increase the worldwide supply of goods that the United States exports and decrease the worldwide supply of goods that the United States imports. The shifts in supply lower the world price of U.S. exports and raise the price of U.S. imports. As a result, domestic welfare suffers because the United States receives fewer import goods in exchange for its export goods.

Curtailing the export subsidies provided by the title passage rule and the favorable tax treatment of FSCs would raise about $24 billion from 1998 through 2002. The option would curtail the export subsidy from the title passage rule by eliminating it and treating the income of U.S. companies from the sale of goods abroad as domestic-source income. An exception would be allowed, however, if a U.S. company had a place of business that was located outside the United States and was substantially involved in the export sale. Under the exception, income would be allocated between domestic and foreign sources based on the location of the business activities that produced the income.

The option would curtail the subsidy from FSCs by treating them like other foreign subsidiaries. In general, all of the income repatriated from FSCs would be subject to U.S. tax, but some of it might be foreign-source income under the revised sourcing rule mentioned above. The tax on any income from an FSC that was deemed foreign-source income could be offset by unused foreign tax credits.

REV-22 IMPOSE A MINIMUM TAX ON FOREIGN-OWNED BUSINESSES

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	0.1	0.3	0.4	0.5	0.5	1.8

SOURCE: Joint Committee on Taxation.

Foreign-owned companies must pay tax on the income they earn from business activities within the United States. Treaties with other countries generally stipulate that the United States will not tax the income of foreign-owned businesses more heavily than the income of U.S.-owned businesses.

When foreign multinational corporations operating in the United States import materials and services from affiliated companies abroad, the "transfer price" of imports affects the amount of income that is subject to U.S. tax. (The transfer price is the price charged for goods sold between affiliated companies.) By raising the transfer price of imports, foreign-owned companies can shift income out of the United States to their foreign affiliates and reduce their U.S. tax liability. U.S. tax law requires companies to base the transfer prices of many goods and most services on comparable transactions between unaffiliated companies. But such prices are often difficult for companies to determine and even more difficult for the Internal Revenue Service to enforce, especially when comparable goods and services are not routinely traded among unaffiliated companies.

Foreign-owned multinational corporations may be manipulating transfer prices to shift income overseas and avoid U.S. tax. Circumstantial evidence has indicated that this kind of tax avoidance has occurred. For example, studies have found that the reported profit rates (as a percentage of assets and as a percentage of sales) of foreign-owned multinational corporations operating in the United States are generally lower than the profit rates of U.S.-owned corporations in the same industry.

However, other plausible explanations exist for the low profit rates. For example, foreign-owned companies may have newer plants and equipment than U.S.-owned companies in the same industry. Because accelerated depreciation methods allow companies to claim larger annual deductions on newer equipment than on older equipment, foreign-owned companies would have higher reported depreciation costs and lower reported profit rates as a percentage of sales. Moreover, the lack of an inflation adjustment for the book value of plant and equipment undervalues older assets relative to newer assets. As a result, U.S.-owned companies with older assets would tend to have higher profit rates as a percentage of reported book value than foreign-owned companies with newer assets. When foreign-owned companies are the result of recent acquisitions, they would tend to have lower than average rates of profit. Newly acquired companies tend to have more debt, larger depreciation deductions, and higher book value from assets that are revalued on acquisition.

To discourage foreign companies from manipulating transfer prices to avoid U.S. tax, a minimum tax could be levied on foreign-owned businesses that have a sizable amount of trade with affiliated companies overseas. One legislative provision, introduced in 1992, would have imposed a minimum tax on all companies that are at least 25 percent foreign owned and have transactions with foreign affiliates in excess of either 10 percent of their gross income or $2 million annually. Under the proposal, the foreign-owned company would compute its taxable income under the current income tax rules, but its taxable income would be subject to a floor. The floor would equal 75 percent of its gross business receipts multiplied by the average

profit margin on gross receipts for U.S. companies in the same industry. If the foreign-owned company's operations spanned several industries, the floor would be based on the profit margins in each industry weighted by the share of the company's gross receipts in that industry. The Internal Revenue Service could waive the minimum tax after examining a company's method of computing transfer prices and finding it acceptable.

The formula approach under the minimum tax provides a simple way to ensure that foreign-owned companies conducting business in the United States pay an acceptable amount of U.S. tax. The simplicity of the approach may offer some advantage over the cumbersome rules for arm's-length pricing, which are extremely difficult to enforce. The formula approach, however, provides a very crude estimate of taxable profit.

The minimum tax would discriminate against foreign-owned companies, possibly in violation of U.S. treaties, by taxing their income more heavily than the income of their domestic competitors. The minimum tax would be especially onerous on foreign-owned companies starting new businesses in the United States because new businesses are seldom profitable initially. Under the minimum tax, such businesses would still owe a sizable amount of income tax based on their gross receipts.

Other countries would be likely to treat the minimum tax as a protectionist measure and retaliate with similar taxes on U.S.-owned companies conducting business within their borders. If so, the minimum tax would stifle international trade and reduce economic welfare throughout the world. Imposing the minimum tax on foreign-owned companies, which is one of many possible formulary approaches, would raise $1.8 billion from 1998 through 2002.

REV-23 TAX CAPITAL GAINS FROM HOME SALES

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Tax 30 Percent of Gain	1.9	5.5	5.7	5.9	6.0	25.0
Tax Lifetime Gains in Excess of $125,000	0.2	0.8	0.9	0.9	0.9	3.7

SOURCE: Joint Committee on Taxation.

When homeowners sell their home, they realize a capital gain or loss equal to the difference between the selling price and their basis. Their basis is the initial cost of the home plus the cost of home improvements.

Although capital gains on most assets are taxable when the assets are sold, capital gains on home sales generally escape taxation. A taxpayer can defer the capital gain from the sale of a principal residence by purchasing another home of at least equal value within two years. When a homeowner dies, the accrued gain on the current home plus any gain on previous homes escapes tax permanently. Further, the tax law allows taxpayers age 55 and older to exclude up to $125,000 of gain from one home sale even if they do not purchase another home of equal or greater value within two years. Replacing the deferral and one-time exclusion with a rule that includes 30 percent of capital gains from home sales in taxable income would raise $25 billion in 1998 through 2002. Alternatively, including all lifetime gains in excess of $125,000 in taxable income when realized would raise $3.7 billion over the same period.

Current law effectively shields most gains on home sales from taxation. In 1993, about $300 million in taxes were paid on home sales in contrast to the roughly $20 billion that would have been paid without the deferral and one-time exclusion. Despite raising relatively little revenue, current law can discourage homeowners from selling their homes and either purchasing homes of lesser value or renting rather than owning.

The President in his budget for fiscal year 1998 has proposed to reduce the taxing of capital gains on home sales. The proposal would allow taxpayers to exclude up to $500,000 of gains on the sale of their principal residence. A taxpayer could use this exclusion repeatedly, provided the sales occurred at least two years apart. The proposal would enable nearly all homeowners to move to less expensive homes or to rent without concern about triggering a capital gains tax liability.

The preferential treatment of capital gains from home sales is only one of the ways in which the tax code strongly favors owner-occupied homes over other investments (for a discussion of other ways, see REV-04). All of those tax preferences divert savings from business investment to housing. One way to make the tax treatment of housing more like that of other assets would be to replace the capital gains deferral and exclusion provisions with a low tax rate on gains from home sales. Including 30 percent of the gain from home sales in taxable income would make the tax rate on such gains range from 4.5 percent for taxpayers facing a 15 percent marginal tax rate to 11.9 percent for those in the 39.6 percent tax bracket.

An increase in the tax on gains from home sales would further discourage home sales. It might discourage workers from relocating to take advantage of better job opportunities. The tax might also deter some homeowners from changing homes as family requirements change. The low tax rate, however, would limit the extent to which moves were discouraged. Furthermore, such a tax on home sales would treat people who moved to less expensive homes or to rental units the same as people who buy more expensive homes.

Another option would allow all taxpayers to exempt the first $125,000 of gains on all home sales from tax, but would fully tax the excess over that amount at

the time of sale. That option would protect the mobility of most homeowners. Taxpayers who realize a gain of less than $125,000 on their first home could apply the unused portion to future home sales. That exclusion would increase the mobility of homeowners under age 55 relative to current law because they could move to homes of lesser value without incurring a tax as long as the gain on the home they sold was less than $125,000. Although this proposal would increase mobility for most homeowners, it would reduce it for those under age 55 whose gains from home sales exceed $125,000. Those taxpayers could no longer defer additional gain by purchasing a more expensive home.

Taxing gains on home sales without the rollover and exclusion that current law allows would increase the need for taxpayers to keep records of home improvements. They would need to maintain such records to establish the tax basis of a home upon sale. Currently, many taxpayers do not keep such records because the probability of any future tax on gains from a home sale is low and the expected present value of such a tax is small. Allowing a lifetime exemption of $125,000 would complicate recordkeeping, especially when people buy and sell successive homes with different spouses.

Much of the capital gain on home sales results from inflation. Ideally, inflationary gains would not be subject to income taxation. Taxing inflationary gains may, however, be an appropriate way to offset the tax benefit homeowners enjoy from inflation by being able to deduct fully their mortgage interest payments, which include an inflation premium.

Including capital gains from the sale of a home in taxable income could argue for a change in the treatment of capital losses from home sales. Taxpayers generally may not deduct losses on home sales against gains from sales of future homes, gains from sales of other assets, or against other income. In contrast, taxpayers may deduct their capital losses from other assets against capital gains on other assets or, if they do not have gains in excess of losses, against up to $3,000 of other income. The options described here would continue to disallow the deduction of losses from home sales.

Any reduction in the tax benefit from home ownership would lower the value of existing housing relative to other assets such as corporate equity. Middle-income taxpayers particularly would feel the loss in value because homes are their principal asset.

Another way to reduce the tax benefit for home ownership is to limit the mortgage interest deduction (see REV-04). Limiting the mortgage interest deduction has the advantages of not hindering mobility or complicating recordkeeping. Taxing gains on sale, however, has the advantage of preserving the greatest tax benefit for first-time homebuyers.

REV-24 TAX CAPITAL GAINS HELD UNTIL DEATH

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Include Gains in the Last Income Tax Return of the Deceased[a]	b	15.0	15.9	13.9	11.4	56.2
Enact a Supplemental 10 Percent Estate Tax	b	1.8	2.0	1.7	1.3	6.8
Enact a Carryover Basis	b	1.2	2.3	3.5	4.9	11.9

SOURCE: Joint Committee on Taxation.

a. Estimates are net of reduced estate tax revenues.

b. Less than $50 million.

A capital gain or loss is the difference between the current value of an asset and the owner's basis. The owner's basis is the initial cost of the asset plus the cost of any subsequent improvements and minus any deductions for depreciation. When an asset is sold, tax law normally requires that the owner include any realized gain in taxable income. The owner can deduct any realized losses against realized gains, and when the owner does not have gains in excess of losses, he or she can deduct up to $3,000 of the loss against other income.

An exception occurs when an owner holds an asset until death. In that case, tax law allows the inheritor to "step up" the basis to the asset's value as of the date of the decedent's death. On subsequent sale of the asset, the inheritor pays tax on the gain that accrued after the decedent's death. The gain that accrued before the decedent's death is permanently excluded from taxable income. The estate of the decedent may pay taxes under the separate estate tax, but that tax applies equally to assets on which the decedent previously paid income tax and to assets with accrued capital gains that had escaped income taxation.

There are three ways to tax gains held at death: the law could require that gains held at death be included as income on the final income tax return of the decedent, the estate of the decedent could be subject to a supplemental tax rate on accrued gains, or the law could require that inheritors assume the decedent's basis in the asset they inherit. Under the last method of carryover basis, inheritors would include the decedent's unrealized gain in their taxable income when they sold the asset.

Tax Gains on Final Return of the Decedent. Taxing accrued but unrealized gains on the final income tax return of the decedent would raise about $56 billion from 1998 through 2002. This option would exclude gains on assets that a spouse inherits. Instead, the spouse would assume the basis of the decedent and pay tax on the full gain only when the asset was sold. Any gains on assets that the decedent left to charity would also be exempt. The option would include gains on other assets in taxable income. It would also allow three additional modifications. First, to ease the problem of documenting the basis, the option would allow the estate to use an alternative basis equal to one-half of the asset's current value in computing the gain to be included on the final tax return. Second, the estate could claim the existing $125,000 exclusion on the gain from the sale of a principal residence if the decedent had not already claimed it. Third, the estate could exclude an additional $75,000 of any remaining gains. With all of those provisions, about 10 percent of decedents would owe taxes on accrued gains on their final income tax return. Finally, taxes paid on gains realized at death would be deductible under the estate tax.

Tax Gains Under the Estate Tax. An additional estate tax on accrued gains of 10 percent would raise about $7 billion from 1998 through 2002. This option would apply a flat 10 percent rate to the same tax base as in the previous option. In addition, however, taxpayers could offset the additional tax with any unused credits under the estate tax. Because of those credits, few people would owe additional tax under this option. Only about 1 percent of estates currently pay the estate tax, and the fraction paying the additional tax on gains would be about the same.

Tax Gains Upon Realization by Heirs (Carryover Basis). A third option would carry over the decedent's basis in assets left to the heirs and tax the gains of the decedent when the heirs sold their assets. This option would raise roughly $12 billion from 1998 through 2002. The option would also allow heirs to set the basis of inherited assets at one-half of their current value. In addition, if the estate of the decedent paid any estate tax, shares of that tax would be added to the basis of all the estate's assets in proportion to their shares of the estate's value. Carryover basis would make most gains held at death taxable, but the timing of the tax payments would depend on when the heirs sold the inherited assets.

Gains held until death have always been exempt from income tax. The Congress enacted a carryover basis in the Tax Reform Act of 1976 but postponed it in 1978 and repealed it in 1980. Hence, it never took effect.

Taxing accrued gains at death, on either the last income tax return or the estate tax, would reduce the incentive for investors to hold assets until death in order to avoid tax. Current law encourages taxpayers to hold on to assets longer than they otherwise would. That "lock-in" effect distorts their investment portfolios and may hinder the flow of capital to activities with higher rates of return. Reducing the lock-in effect is one of the advantages of reducing the income tax on realized capital gains. Taxing gains at death would also reduce the lock-in effect, but, unlike a lower capital gains tax rate, it would reduce the preferential treatment of capital gains over ordinary income.

Using a carryover basis would not achieve the same unambiguous reduction of the lock-in effect that the other two options would achieve. Using a carryover basis lessens the incentive for the original owner to hold on to an asset until death. But an heir receiving an asset with a carryover basis has a stronger incentive to hold on to the asset than under current law.

A disadvantage of taxing gains at death is that the tax might force the family of the decedent to sell assets to pay the tax, although two of the three options minimize that problem. Forced sales of illiquid assets at an inopportune time can reduce their value substantially. Forcing heirs to sell a family farm or business would impose a particular hardship on families wanting to continue the enterprise. Forced sales would not occur if a carryover basis was used because heirs could defer the tax on unrealized gains until they sold the assets. In addition, taxing gains held at death through the estate tax would also reduce forced sales. The estate tax permits heirs who continue to operate a family farm or business to value the farm or business on its current use instead of its market value, and then to defer payment for five years and spread it over the next 10 years. Estates would receive no deferral, however, if gains were taxed on the final income tax return of the deceased. That option could be structured to allow the same protections as are currently allowed under the estate tax, although at some cost in revenue.

Taxpayers and the Internal Revenue Service often have difficulty determining the basis of assets of closely held businesses, personal property, and assets for which the taxpayer did not keep adequate records. The difficulty in determining the amount of the basis was one of the main arguments that influenced the Congress to delay implementing carryover basis in 1978 and then to repeal it in 1980. Because people currently planning to hold assets until death might not have kept adequate records, documenting the basis would be particularly difficult immediately after passage of a law to tax gains held until death. But once a tax on gains held at death had taken effect, people would have a reason to keep better records. In the interim, allowing estates and heirs to set the basis at one-half of the market value at the time of death would ease compliance. Finally, if gains held at death were taxable under the estate tax instead of the income tax, most estates would be exempt because of the high estate tax credit (see REV-25).

In 1995, the Congress passed and the President vetoed legislation to raise the value of assets excludable from the estate tax. That legislation also provided a

larger exclusion for family-held businesses. If the legislation became law, revenues raised by taxing gains through the estate tax would be lower than shown above, and the burden on family businesses would be lessened.

REV-25 INCREASE ESTATE AND GIFT TAXES

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Reduce the Unified Credit	0	5.4	6.1	6.8	7.6	25.9
Convert the Credit for State Death Taxes into a Deduction	0	2.0	2.3	2.6	2.9	9.8
Include Life Insurance Proceeds in the Base	0	0.4	0.6	0.6	0.7	2.3

SOURCE: Joint Committee on Taxation.

Current law imposes a gift tax on transfers of wealth during a taxpayer's lifetime and an estate tax on transfers at death. The estate and gift taxes together constitute a unified tax: one progressive tax is imposed on cumulative transfers during life and at death. Generous credits built into the system, however, exempt most estates from taxation. About 32,000 estates paid tax in 1994.

Although the estate and gift tax applies to all transfers of wealth, a unified credit of $192,800 effectively exempts the first $600,000 from taxation. As a result of the credit, taxable estates face tax rates ranging from 37 percent on the first $150,000 of transfers in excess of $600,000 to 55 percent on transfers in excess of $3 million. An additional 5 percent surcharge applies to estates between $10 million and $21.04 million. The 5 percent surcharge phases out the benefit of graduated rates for those larger estates. In addition, current law phases out the unified credit for estates above $10 million. Another credit allows taxpayers to subtract a portion of state death taxes from federal estate tax liability.

The Congress last raised estate and gift taxes in the Omnibus Budget Reconciliation Act of 1993, when it made permanent the top two estate tax rates that had been scheduled to decline to 50 percent after 1992. Those are the 53 percent rate that applies to estates of between $2.5 million and $3 million and the 55 percent rate that applies to estates of more than $3 million. The Congress could raise the estate and gift tax, without raising rates, by reducing allowable credits or by including proceeds of life insurance policies in the tax base.

Reduce the Unified Credit. Lowering the unified credit from $192,800 to $87,800 would raise about $26 billion from 1998 through 2002. That lower credit is equivalent to an exemption of the first $300,000 of transfers, instead of the current $600,000.

The estate and gift tax is a way to tax income that has not been taxed during a person's lifetime. It provides the only tax on the unrealized capital gains held until death by people with the highest-valued estates. The estate and gift tax, however, taxes those unrealized gains at the same rate as other accumulated wealth that has already been taxed as income when earned (see REV-24).

Reducing the unified credit would extend the tax to more estates with small businesses, family farms, and large homes. The necessity of paying the tax would put pressure on heirs to sell those assets when they might prefer to retain them in the family or when the value of the assets was temporarily depressed. However, the estate tax has provisions for spreading payment over 15 years for small businesses and family farms, but even that burden could be prohibitive for retaining some family assets.

Reducing forced liquidation of assets was one concern of the Congress when it voted in 1981 to raise the credit in steps from $47,000 to $192,800 by 1987. Since then, the credit has been fixed, and hence its value therefore has been eroded by inflation. The credit is now worth only about $138,000 in 1987 dollars, representing a nearly 30 percent decline in its value over the last 10 years, but it remains more than double its inflation-adjusted level in 1981.

A provision in the Balanced Budget Act of 1995, vetoed by the President, would have raised the unified credit to $248,300 by 2001 and indexed it to inflation thereafter. Such a change would be equivalent to an exemption of the first $750,000 of transfers, instead of the current $600,000, but still leave the credit below its real level reached in 1987. That act, as well as the President's budget for fiscal year 1998, include further relief from estate and gift taxes for family businesses.

Convert the Credit for State Death Taxes into a Deduction. Currently, state death taxes reduce federal tax liability by a credit that ranges from 0.8 percent on transfers of $40,000 to 16 percent on transfers of more than $10 million. When enacted in 1926, the credit sometimes virtually eliminated federal tax liability because the top marginal rate on estate and gifts taxes was 20 percent. The credit acts as a state revenue-sharing system for estates taxed up to the 16 percent exclusion level. Consequently, a majority of states have adopted death tax systems that simply redistribute estate tax revenues from the federal to state governments. That shift is accomplished by imposing state taxes that exactly match the amount of the federal credit. Changing the state death tax credit to a deduction would raise about $10 billion from 1998 through 2002 and would correspond to the itemized deduction that taxpayers receive for state and local income and property taxes.

An alternative change that yields about the same revenue is to reduce the amount of state tax credited by half so that the maximum credit is 50 percent of the amount paid to states. The two alternatives are not equivalent for estates of different sizes: the value of the deduction increases as the marginal tax rate rises, whereas the value of the credit is not affected by the marginal tax rate.

Include Life Insurance Proceeds in the Base of the Estate and Gift Tax. Life insurance is an alternative way of transferring wealth to descendants, but is currently exempt from the estate tax if the policyholder is someone other than the person who died. Making life insurance proceeds subject to estate and gift tax would raise $2.3 billion from 1998 through 2002.

REV-26 AMORTIZE A PORTION OF ADVERTISING COSTS

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	5.1	9.0	6.8	4.5	2.6	28.0

SOURCE: Joint Committee on Taxation.

The income tax law allows taxpayers to deduct the ordinary costs of doing business. When a taxpayer purchases a durable asset for use in business, however, the expense may not normally be deducted immediately. Taxpayers must spread out (amortize) deductions over a number of years as the asset depreciates in value. That requirement is intended to match the timing of the deductions for depreciation with the timing of income earned from using the asset in business.

The rate at which such deductions are allowed, the "depreciation schedule," is normally faster than the rate at which an asset actually depreciates. For example, when a machine is expected to last 10 years, the depreciation schedule might allow the original cost to be deducted over five years. The sooner the deductions, the lower the effective rate at which income earned from using the asset is taxed. In the extreme, if the initial cost of a durable asset was deducted immediately, the net income from the asset would effectively not be taxed at all.

Currently, businesses may deduct advertising expenses in the year they are incurred. The benefits of advertising, however, may extend beyond the current year because advertising can create brand recognition or otherwise increase the demand for a business's products or services in later years. If advertising creates a durable asset, the immediate deduction allowed by current law favors such investments over investments in other durable assets.

Under this option, businesses could deduct 80 percent of all advertising expenses immediately but would have to amortize the remaining 20 percent equally (using a "straight line" method) over four years. The option might improve the match between the deductions and the income created from advertising. This option would raise $28 billion from 1998 through 2002. After peaking at $9 billion in 1999, the estimated revenue gain would diminish to under $3 billion by 2002 because the deductions that are deferred are taken by taxpayers in later years. In other words, the total deductions for advertising expenses do not change; they are simply spread out over five years.

Because advertising can be difficult to define, this option would require complex rules to distinguish advertising costs from other ordinary business costs. Some marketing costs, such as those of notifying customers about price changes, redesigning a product package, or changing store displays, might or might not fit within the definition of advertising. If advertising was defined too narrowly, the requirement for depreciation would be easy to avoid and difficult to administer. If advertising was defined too broadly, however, it would place an unintended burden on some forms of marketing.

The option would increase the after-tax cost of advertising and discourage its use. However, advertising also fulfills important economic functions by supplying information about products to prospective buyers. Advertising often provides information about prices, making it easier for buyers to find the lowest price, which can make markets more competitive. Advertising can also provide valuable information about the quality and other characteristics of products, making it easier for buyers to make good purchasing decisions.

Available research provides conflicting evidence about the durability of advertising. The actual rate at which advertising depreciates is unknown and differs for different types of advertising. The depreciation

schedule chosen under any option is necessarily arbitrary. If the depreciation period was too long under the option, advertising would be overtaxed relative to other economic activities

REV-27 ELIMINATE PRIVATE-PURPOSE, TAX-EXEMPT BONDS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Eliminate All Private-Purpose, Tax-Exempt Bonds	0.1	0.6	1.2	1.7	2.1	5.7
Raise the Cap and Extend Limits on Volume to New Issues of All Private-Purpose Bonds	0.1	0.2	0.4	0.6	0.8	2.1

SOURCE: Joint Committee on Taxation.

Tax law permits state and local governments to issue bonds that are exempt from federal taxation and thus bear lower interest rates than taxable bonds. For the most part, the bonds' proceeds have financed public investments such as schools, highways, and water and sewer systems. Beginning in the 1960s, however, state and local governments began to issue a growing dollar volume of tax-exempt bonds to finance quasi-public facilities, such as ports and airports, and private-sector projects, such as housing and shopping centers. Those bonds eventually became known as "private-purpose" bonds because the beneficiaries of the tax-exempt borrowing were private, nongovernmental entities.

Private-purpose, tax-exempt bonds include mortgage bonds for rental housing and single-family (in some cases two-family) homes; bonds for exempt facilities, such as airports, docks, wharves, mass transit, and solid waste disposal; small-issue bonds for manufacturing facilities and agricultural land and property for first-time farmers; student loan bonds, which state authorities issue to increase funds available for guaranteed student loans; and bonds for nonprofit institutions, such as hospitals and universities.

Although private-purpose bonds provide subsidies for activities that may merit federal support, tax-exempt financing is not the most efficient way to provide assistance. With a direct subsidy, the benefit would go entirely to the borrower; with tax-exempt financing, the borrower of funds shares the benefit with the investor in tax-exempt bonds. In addition, because tax-exempt financing is not a budget outlay, the Congress may not routinely review it as part of the annual budget process.

The Congress has placed restrictions on tax-exempt financing several times, beginning in 1968. During the 1980s, those restrictions included limiting the volume of new issues of tax-exempt bonds for some activities and eliminating or setting expiration dates on the use of tax-exempt bonds for other facilities. The Congress, however, frequently postponed some of the expiration dates. In the Omnibus Budget Reconciliation Act of 1993, the Congress permanently extended the use of mortgage bonds for single-family (and some two-family) homes and the use of small issues for manufacturing facilities and agricultural land and property for first-time farmers.

The Tax Reform Act of 1986 included interest earned on newly issued private-purpose bonds in the base for the alternative minimum tax and placed a single state-by-state limit on the volume of new issues of tax-exempt facility bonds, small issues, student loan bonds, and housing and redevelopment bonds. Those state limits on volume are the greater of $50 per resident or $150 million a year. Bonds for publicly owned airports, ports, and solid waste disposal facilities and bonds for nonprofit 501(c)(3) organizations (primarily hospitals and educational institutions) are exempt from the limits on issues of new bonds. However, large pri-

vate universities and certain other nonprofit institutions may not issue tax-exempt bonds if they already have more than $150 million in tax-exempt debt outstanding.

If the Congress eliminated tax exemption for all new issues of private-purpose bonds, the gain in revenue would be about $6 billion in 1998 through 2002. That amount assumes that at least some construction of airports and sewage and solid waste facilities would qualify for tax-exempt financing because they are governmental in nature. Eliminating the tax exemption would eventually raise the cost of the services provided by nonprofit hospitals and other facilities that currently qualify for tax-exempt financing, but it would also result in more efficient allocation of resources.

Including all bonds for private nonprofit and quasi-public facilities under a single state limit on volume--while raising the limits beginning in 1998 to, say, $75 per capita or $200 million a year--would increase revenues by $2 billion in 1998 through 2002. Those changes would curb the growth of all private-purpose bonds without sharply reducing their use. The curb would primarily affect bond issues for nonprofit hospitals, which are not included in the current cap. The proposal would also apply to bonds for airport facilities, such as departure gates, that are for the exclusive private use of airlines under long-term leases, but would continue to allow unlimited tax-exempt financing of public airport facilities, such as runways and control towers.

REV-28 REDUCE TAX CREDITS FOR REHABILITATING BUILDINGS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Repeal Credit for Nonhistoric Structures and Reduce Credit for Historic Structures to 15 Percent	a	0.1	0.1	0.1	0.1	0.5
Repeal Both Credits	0.1	0.2	0.2	0.2	0.2	0.9

SOURCE: Joint Committee on Taxation.

a. Less than $50 million.

The Congress enacted tax credits for rehabilitation to promote the preservation of historic buildings, encourage businesses to renovate their existing premises rather than relocate, and encourage investors to refurbish older buildings. The credit rate is 10 percent for expenditures on commercial buildings built before 1936, and 20 percent for commercial and residential buildings that the Department of the Interior has certified as historic structures because of their architectural significance.

The credits favor commercial use over most rental housing and may therefore divert capital from more productive uses. Moreover, in favoring renovation over new construction, the credits may encourage more costly ways of obtaining additional housing and commercial buildings.

Rehabilitation may have social benefits when it discourages the destruction of historically noteworthy buildings. The government could promote that objective at a lower cost, however, by permitting a credit only for the renovation of certified historic buildings and lowering the credit rate. Some surveys indicate that a 15 percent credit would be sufficient to cover the extra costs of both obtaining certification and undertaking rehabilitation of historic quality. Reducing the credit for historic structures to 15 percent and repealing the credit for nonhistoric structures would increase revenues over the 1998-2002 period by about $0.5 billion. Repealing both credits would raise about $0.9 billion over the same period.

REV-29 REPEAL THE LOW-INCOME HOUSING CREDIT

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	0.1	0.3	0.6	1.0	1.3	3.3

SOURCE: Joint Committee on Taxation.

The low-income housing credit (LIHC) subsidizes the construction and substantial rehabilitation of low-income rental housing. Individuals and corporations who qualify for the LIHC receive tax credits over a 10-year period that are worth up to 70 percent, measured in present value, of the construction or rehabilitation costs of qualifying projects. The percentage is limited to 30 percent for projects that receive other federal subsidies.

To qualify for the LIHC, project owners must set aside at least 20 percent of rental units for families whose income is below 50 percent of area median income, or 40 percent of units for families whose income is below 60 percent of median income. Rents are restricted. The set-aside and rent restrictions apply for at least 15 years. State housing agencies allocate the credits subject to statutory limits.

The low-income housing credit will reduce federal revenue by $2.8 billion in 1997 and is estimated to grow to $3.9 billion by 2000. Repealing the tax credit for new projects would raise $3.3 billion from 1998 through 2002.

Housing assistance could be provided to the same number of people at lower cost if the assistance was provided in the form of an expanded housing voucher program. Low-income tenants can use housing vouchers to pay for all or part of the rent for the housing of their choice, as long as it meets minimum standards for habitability. By contrast, the low-income housing credit subsidizes only new and substantially rehabilitated housing, which is the most expensive kind of housing.

High overhead costs also make some housing subsidized by the LIHC even more expensive to produce and rent. Private investors in low-income housing syndicates require high rates of return to compensate for the inherent risk of such investments, as well as the specific risks imposed by the credit itself. For example, projects that fail to comply with the requirements of the program may be subject to heavy penalties. Also, some investors cannot use the credits every year because of the limits on passive losses and on the use of business tax credits. Moreover, the administrative and marketing costs in organizing low-income housing syndicates are high, averaging 20 percent of project costs in some cases.

Advocates of the LIHC argue that it, in combination with subsidies such as rental assistance under section 8 of the United States Housing Act of 1937, assists many poor families and can be an important part of neighborhood revitalization efforts. In addition, affordable housing that meets minimal housing standards is in short supply in some areas with low-income families. For those reasons, a supply subsidy such as the LIHC might be a more effective policy tool than a demand subsidy such as housing vouchers. In addition, advocates argue that lower-middle-income people who benefit from the credit are neglected by traditional housing programs, which primarily assist poor families. Moreover, they believe that state governments, which allocate the credits, are better able to assess the housing needs of their communities than a federal bureaucracy.

Although providing support for low-income housing through housing vouchers instead of the LIHC could potentially provide assistance to the same number of families at lower cost, budget constraints on discretionary spending might make it difficult to repeal the credit in favor of an expanded voucher program funded by annual appropriations. The discretionary spending

limits of the Balanced Budget and Emergency Deficit Control Act of 1985 (as amended in 1990 and 1993) already impose severe constraints on funding for existing discretionary programs. Expanding the housing voucher program would subject those programs to even greater budgetary pressures.

REV-30 TAX CREDIT UNIONS LIKE OTHER THRIFT INSTITUTIONS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Tax All Credit Unions	0.5	0.9	0.9	0.9	0.9	4.1
Tax Credit Unions with More Than $10 Million in Assets	0.5	0.8	0.8	0.8	0.8	3.7

SOURCE: Joint Committee on Taxation.

Credit unions are nonprofit institutions that provide their members with financial services such as accepting deposits and making loans. The federal income tax treats credit unions more favorably than competing thrift institutions, such as savings and loan institutions and mutual savings banks, by exempting their retained earnings from tax. As a result, more credit unions and fewer taxable thrifts exist than would otherwise be the case. That situation reduces economic efficiency in that competing institutions might otherwise provide the same services but at a lower cost.

Credit unions, savings and loans, and mutual savings banks were originally all tax-exempt, but in 1951 the Congress removed the tax exemptions for savings and loans and mutual savings banks. It considered them to be more like profit-seeking corporations than nonprofit mutual associations.

Since 1951, credit unions have come to resemble those other thrift institutions in certain respects. Credit unions no longer limit membership to people sharing a common bond, which was usually employment. Since 1982, the regulators have allowed credit unions to extend their services to others, including members of other organizations (this policy is currently undergoing legal challenge). In addition, most credit unions allow members and their families to participate permanently, even after members have left the sponsoring organization. Credit union membership has grown from about 5 million in 1950 to almost 70 million today. That leap in numbers offers evidence that credit unions, like taxable thrifts, now serve the general public. In addition, credit unions retain earnings like thrift institutions. Credit unions argue that they retain earnings as protection against unexpected events, but other thrift institutions argue that credit unions use the retained earnings to finance expansion. Moreover, credit unions are becoming more like savings and loans and mutual savings banks in the services they offer. A significant number of credit unions offer such services as first and second mortgages, direct deposit, access to automatic tellers, preauthorized payments, credit cards, safe deposit boxes, and discount brokerage services.

Many smaller credit unions, however, retain the characteristics of nonprofit mutual organizations and perhaps should not be subject to taxation. For instance, only volunteers from the membership manage and staff some of those credit unions. Moreover, many of those smaller credit unions do not expand their membership beyond their immediate common bond or provide services comparable to competing thrift institutions. To protect those smaller credit unions, the Congress could choose to exempt from taxation those credit unions with assets below $10 million. Such an action would exempt about two-thirds of all credit unions from taxation, although they hold only about 8 percent of all assets in the credit union industry.

Taxing all credit unions like other thrift institutions would raise $4.1 billion in 1998 through 2002. Taxing only credit unions with assets above $10 million would raise about $0.4 billion less.

REV-31 REPEAL TAX PREFERENCES FOR EXTRACTIVE INDUSTRIES

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Repeal Expensing of Exploration and Development Costs	0.3	1.0	0.9	0.8	0.7	3.7
Repeal Percentage Depletion	0.3	0.4	0.4	0.5	0.5	2.1

SOURCE: Joint Committee on Taxation.

The current tax system favors extractive industries (oil, gas, and minerals producers) over most other industries through two types of tax preferences. First, certain exploration and development costs incurred by extractive producers may be immediately deducted ("expensed") rather than recovered more slowly through deductions for depreciation. Second, certain types of extractive companies (independent producers and royalty owners) may elect to use the "percentage depletion" method to recover costs rather than the standard "cost depletion" method. Under percentage depletion, cumulative depletion deductions may exceed actual costs of investment. As a result, the tax system subsidizes production.

Eliminating those two tax preferences would improve the allocation of resources while raising significant revenue. Repealing the expensing of exploration and development costs would raise $3.7 billion in 1998 through 2002, assuming that firms could still expense costs from unproductive holes and mines. Repealing the percentage depletion would raise $2.1 billion over the same five-year period.

Repeal Expensing. Certain types of oil and gas producers and producers of hard minerals may deduct some exploration and development costs at the time such costs are incurred rather than over time as the resulting income is generated. That immediate deduction of costs contrasts with the normal tax treatment facing other industries, in which costs are deducted more slowly according to prescribed rates of depreciation or depletion. The Tax Reform Act of 1986 established uniform capitalization rules that require certain direct and indirect costs allocatable to property to be either deducted when inventory is sold or recovered over several years as depreciation deductions (so that any deduction of costs is postponed to the future). However, intangible drilling and development costs and mine development and exploration costs are exempt from those rules. Thus, the expensing of such costs results in a tax preference for extractive industries that does not exist for most other industries.

Expensible exploration and development costs include costs for excavating mines and drilling wells. They also include prospecting costs for hard minerals but not for oil and gas. Although current law allows full expensing for independent oil and gas producers and noncorporate mineral producers, it limits expensing to 70 percent of costs for "integrated" oil and gas producers (companies involved in substantial retailing or refining activities) and corporate mineral producers. Firms subject to the 70 percent limit must deduct the remaining 30 percent of costs over a 60-month period.

Repeal Percentage Depletion. The percentage depletion method of cost recovery allows certain types of extractive companies (independent producers and royalty owners, or "nonintegrated" companies) to deduct a certain percentage of a property's gross income in each taxable year, regardless of the actual capitalized costs. In contrast, other industries (and since 1975, integrated oil companies as well) use the cost depletion method. Under cost depletion, the costs recovered cannot exceed the taxpayer's expenses in acquiring and developing the property. But under percentage depletion, they may. Thus, the percentage depletion method results in a tax preference for certain types of extractive companies

that does not exist for other companies. Unlike the expensing of exploration and development costs, however, percentage depletion applies only to a small subset of total oil, gas, and minerals production because it excludes the large integrated producers.

Current law typically allows nonintegrated oil and gas companies to deduct 15 percent of the gross income from oil and gas production up to 1,000 barrels per day. The Omnibus Budget Reconciliation Act of 1990 made percentage depletion even more generous, however, for those nonintegrated companies that are considered to be "marginal" producers (those with very low total production or production that is entirely made up of heavy oil). The deduction for marginal properties can be up to 25 percent of gross income if the market price of oil drops low enough.

Producers of hard minerals may also use percentage depletion, but the statutory percentages vary. Minerals eligible for percentage depletion include, but are not limited to, sand (5 percent), coal (10 percent), rock asphalt (14 percent), iron ore (15 percent), oil shale (15 percent), gold (15 percent), and uranium (22 percent). Tax law limits the amount of percentage depletion to 100 percent of the net income from an oil and gas property and 50 percent of the net income from a property with hard minerals.

Economic Inefficiency Associated with the Preferences. Both expensing and percentage depletion were established in the early part of this century. Although the original rationale for expensing was that the costs of exploration and development were considered ordinary operating expenses, continuing both types of preferences has been justified on the grounds that oil and gas are "strategic minerals," essential to national energy security.

However, expensing and percentage depletion distort the efficient allocation of resources in several ways. First, the preferences cause resources to be overallocated to drilling and mining, when some of those resources might be used more productively elsewhere in the economy. Second, although the preferences might reduce dependence on imported oil in the short run, they encourage current extraction, perhaps at the cost of reduced future extraction and greater future reliance on foreign production. Third, the preferences may result in an inefficient allocation of production within those extractive industries, since the subsidies are not systematically related to the economic productivity of investments. For example, percentage depletion is a subsidy according to gross income and not according to investment. Thus, it encourages developing existing properties over exploring for new ones. As another example, producers who pay the alternative minimum tax must defer or even forgo both types of preferences, regardless of the economic productivity of their investments.

REV-32 CAPITALIZE THE COSTS OF PRODUCING TIMBER

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	0.3	0.5	0.5	0.5	0.5	2.3

SOURCE: Joint Committee on Taxation.

The current tax system allows timber producers to deduct immediately ("expense") most of the production costs of maintaining a timber stand. That tax treatment contrasts with the uniform capitalization rules applied to most other industries. Established under the Tax Reform Act of 1986, such rules require that production costs not be deducted until the sale of the produced goods or services. When businesses do not account for costs properly, business income is not measured correctly because the costs of producing goods and services are not matched with the sale of the goods and services.

Although the costs of planting a timber stand are in fact subject to capitalization rules, subsequent maintenance and production costs are not. Timber producers can expense indirect carrying costs, such as property taxes, interest, insurance costs, and administrative overhead, as well as the costs of labor and materials to remove unwanted trees and to control fire, disease, and insects. By allowing timber producers to deduct such production costs before the timber is harvested or sold, the tax code in effect subsidizes timber production by deferring tax that producers otherwise would owe on their income. (Under certain circumstances, however, the deferral granted to noncorporate producers of timber may be greatly curtailed by the limits of the tax code on losses from passive business activities.)

The original rationale for expensing timber production costs was a general perception that such costs were maintenance costs and thus deductible as ordinary costs of a trade or business. When the Tax Reform Act of 1986 established uniform capitalization rules, the costs of producing timber were exempted, as were the exploration and development costs associated with oil, gas, and minerals production (see REV-31). The general reason given for those exemptions was that applying the rules to those industries might have been unduly burdensome.

Expensing timber production costs distorts investment behavior in two ways: more private land is devoted to timber production, and trees are allowed to grow longer before they are cut. Unless timber growing offers spillover benefits to society that are not captured by market prices, the tax preference leads to an inefficient allocation of resources and an inefficient harvesting rate.

Whether or not timber production offers important spillover benefits is unclear. Standing timber provides some spillover benefits by deterring soil erosion and absorbing carbon dioxide (a gas linked to global warming), but cutting timber can lead to soil erosion. In addition, producing and disposing of wood and paper products contribute to pollution.

Capitalizing the costs of timber production incurred after December 31, 1997, would raise $2.3 billion in revenue from 1998 through 2002 by accelerating tax payments from timber producers. In the long run, capitalizing timber production costs would raise the price of domestic timber and lower the value of land used to grow it. Moreover, lease payments to private land owners by timber growers would probably fall, causing some land that historically has been devoted to growing timber to be used in other ways. In the short run, however, capitalizing timber production costs might lower the price of domestic timber because producers would have an incentive to harvest timber earlier.

REV-33 REPEAL THE PARTIAL EXEMPTION FOR ALCOHOL FUELS FROM EXCISE TAXES ON MOTOR FUELS

	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Addition to Current-Law Revenues	0.4	0.5	0.5	0.5	0.5	2.4

SOURCE: Joint Committee on Taxation.

NOTE: Estimates are net of reduced income and payroll tax revenues.

The tax code imposes excise taxes on motor fuels, but it partially exempts fuels that are certain blends of gasoline and alcohol. Repeal of the partial excise tax exemption would raise $2.4 billion in revenues over the 1998-2002 period. That estimate assumes that the Congress also repeals the alcohol fuels credit, an alternative tax benefit that can be used instead of the partial excise tax exemption. The credit, however, is in almost all cases less valuable than the exemption and is rarely used.

The exemption rate depends on the percentage of alcohol in the fuel and whether the alcohol was made from a fossil fuel (nonrenewable) or nonfossil fuel (renewable) source. The exemption applies only to alcohol fuels produced from nonfossil fuel sources. For example, gasohol, which is 90 percent gasoline and 10 percent (renewable) ethanol--an alcohol fuel produced primarily from corn and sugar--receives a 5.4 cents per gallon exemption from the 18.3 cents per gallon tax on gasoline.

One purpose of the tax benefit--enacted in the late 1970s--was to increase national security by reducing the demand for imported oil and thereby reducing U.S. dependence on foreign oil sources. Another purpose was to provide an additional market for U.S. agricultural products by encouraging domestic production of ethanol. Over the last several years, U.S. environmental action has increased the value of ethanol by mandating the oxygen content of motor fuels in many areas of the country. Use of oxygenated fuels in motor vehicles generally produces less carbon monoxide pollution than does gasoline.

Before the Clean Air Act Amendments of 1990 were enacted, the tax benefits encouraged energy producers to substitute ethanol for gasoline--and successfully so. Motor fuels blended with ethanol made up less than 1 percent of the total motor fuels market in 1980, but that proportion grew to nearly 7 percent by 1990. Since ethanol production uses more resources than gasoline production, the resulting allocation of resources may create economic inefficiencies if the value of those resources in alternative uses becomes greater than the value of the diminution in air pollution.

The Clean Air Act Amendments reduced the need for the partial excise tax exemption. In that legislation, the Congress mandated the minimum oxygen content of gasoline in areas of the country with unacceptable levels of air pollution.

In the areas where the mandate applies, the partial excise tax exemption for alcohol fuels affects the type of oxygenating agent used but not the total use of oxygenated fuels. The exemption only applies to oxygenated fuels made from renewable resources, effectively meaning ethanol. The other major source of oxygen in gasoline is methyl tertiary butyl ether (MTBE), which does not receive a tax benefit because it is made from natural gas. Given the mandate, ethanol primarily competes with MTBE, not gasoline, in those markets.

The tax benefit encourages the use of higher-cost ethanol rather than lower-cost MTBE. Some proponents of ethanol argue that it is better for the environment than MTBE. But that argument is not settled. Ethanol appears to reduce carbon monoxide emissions

from automobiles more than MTBE does. However, ethanol evaporates quickly, especially in hot weather, contributing to ozone pollution. In response, companies have developed ethyl tertiary butyl ether (ETBE), a product derived from ethanol that does not have the same problem of evaporation. It also qualifies for the tax benefit. ETBE, however, does not contribute to reduced carbon monoxide emissions, as does ethanol.

Repealing the excise tax exemption could result in higher federal outlays for price support loans for grains, offsetting a portion of the deficit reduction from the increase in revenues. An increase in outlays--not included in the budget estimates shown above--would probably be much smaller than the estimated revenue increase.

REV-34 IMPOSE A VALUE-ADDED TAX

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars)					Five-Year Cumulative Total
	1998	1999	2000	2001	2002	
Impose a 5 Percent Rate, with a Comprehensive Base	0	98.0	188.8	197.8	207.6	692.2
Impose a 5 Percent Rate, with Food, Housing, and Medical Care Excluded	0	51.9	99.8	104.3	109.1	365.1

SOURCE: Joint Committee on Taxation.

NOTE: Estimates are based on an effective date of January 1, 1999. They are net of reduced income and payroll tax revenues, but do not reflect added administrative costs.

A value-added tax (VAT) is a form of general tax used in more than 50 countries, including Canada, Japan, and all other member countries of the Organization for Economic Cooperation and Development (OECD) except Australia and the United States. It is typically administered by taxing the total value of sales of all businesses, but allowing businesses to claim a credit for taxes paid on their purchases of raw materials, intermediate materials, and capital goods from other businesses. As a result, only sales to consumers end up being taxed.

A 5 percent VAT on a broad consumption base (as defined in Table 6-3) would increase net revenues by about $98 billion in 1999 and by nearly $700 billion through 2002. Most VATs, however, do not tax such a broad base. The typical VAT, for example, excludes education, rental housing, medical care, and hard-to-tax items such as basic financial services. A 5 percent VAT on a narrower base (as defined in Table 6-3) would net only about $52 billion in 1999 and $365 billion through 2002. Those revenue estimates assume that collections would not begin until January 1, 1999, because the Internal Revenue Service would need more than a year to set up a VAT.

A VAT might be preferable to an income tax increase because it would not discourage saving and investment by taxing their return. In addition, a broad-based VAT with a single rate would distort economic decisions less than an equal revenue increase in selective consumption taxes. The VATs that have been enacted in other countries, however, include many tax preferences and multiple rates. Such a tax would distort choices about consumption more than a single-rate, broad-based VAT and could be more distorting than higher income tax rates.

A VAT makes the price consumers pay higher than the price sellers receive. Therefore, adopting one would cause an initial jump in the overall consumer price level because the government computes the consumer price index on a tax-inclusive basis. The increase in the price level, however, would not necessarily lead to further inflation, depending on how the Federal Reserve System responded. Many experts believe that the Federal Reserve would adjust the money supply in a way that would maintain nominal income. Under that scenario, macroeconomic models generally predict little inflation beyond the initial price jump.

The VAT is a regressive tax in the sense that families with lower annual income would pay a larger share of their income in taxes. That effect occurs because the ratio of consumption to annual income is higher for low-income families than for high-income families. A VAT is less regressive over a person's lifetime than in a single year because income and consumption nearly match over a lifetime, even though income tends to fluctuate annually more than consumption does. Many economists believe that lifetime measures of tax burdens are more meaningful than annual measures.

Table 6-3.
The Size of Two Possible Tax Bases for a Value-Added Tax, 1995

Items Included in Tax Base	Amount (Billions of dollars)
Broad Tax Base	
Total Personal Consumption in Gross Domestic Product	4,925
Net Purchases of Residential Structures	290
Subtotal	5,215
Exclusions from the Base[a]	
Rental value of housing	-710
Religious and welfare activities	-137
Subtotal	-847
Total	4,368
Narrower Tax Base	
Total Personal Consumption in Gross Domestic Product	4,925
Exclusions from the Base[a]	
Rental value of housing	-710
Religious and welfare activities	-137
All medical care (including insurance)	-883
Food consumed at home	-411
Food furnished to employees	-8
Food produced for farm consumption	b
Brokerage, banking, and life insurance services	-293
Local transit (excluding taxis)	-6
Clubs and fraternal organizations	-13
Tolls for roads and bridges	-3
Private education and research	-111
Subtotal	-2,575
Total	2,350

SOURCE: Congressional Budget Office based on the national income and product accounts.

a. The excluded amount assumes that the specified consumption is taxed at a zero rate.

b. Reduction of less than $500 million.

A VAT could be made slightly less regressive by granting tax preferences for the goods and services low-income people generally consume. Those preferences, however, would substantially increase the costs of enforcement and compliance, and they would reduce revenues. Another way to lessen the VAT's regressivity would be to allow additional exemptions or refundable credits for low-income people under the federal income tax. But exemptions for low-income people would also reduce the revenue gain and would cause many people to file tax returns who otherwise would have no need to file.

Like any new tax, a VAT would impose additional administrative costs on the federal government and additional compliance costs on businesses. If the United States adopted a VAT that was similar to the ones used in the OECD countries, those costs could be substantial. They would be lower if the VAT exempted more small businesses from collecting the tax and if it taxed as many goods and services as possible at the same rate.

A retail sales tax is another way to tax consumption. Because a sales tax is collected entirely at the retail level, however, the incentive to evade a sales tax would be much greater than the incentive to evade a VAT. Moreover, because the sales tax lacks an effective credit mechanism for the taxes that businesses pay on their purchases, it taxes some business purchases by mistake. No OECD country uses a retail sales tax at the national level instead of a VAT.

Other ways to tax a broad consumption base are possible, even though no country has ever tried one. A tax on consumed income, such as the Unlimited Saving Account approach suggested by Senator Domenici and former Senator Nunn, would tax income but with an exclusion for net savings. Under a tax on consumed income, taxpayers could deduct all contributions to qualified savings accounts but would pay tax on net withdrawals. Because individuals would pay tax on a measure of their total consumption, the tax could include a graduated rate schedule, like the rate schedule of the individual income tax. That schedule would make the consumed-income tax less regressive than a VAT.

REV-35 IMPOSE A BROAD-BASED ENERGY TAX

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Impose a Tax on the Carbon Content of Fossil Fuels ($19.50 per ton)	14.3	21.5	21.9	22.2	22.5	102.4
Impose a Tax on the Heat Content of All Fuel Sources (33 cents per million Btus)	14.1	21.2	21.5	21.8	22.1	100.7
Impose an Ad Valorem Tax on All Fuel Sources (3.8 percent of value)	13.4	20.5	21.4	22.2	22.9	100.4

SOURCE: Joint Committee on Taxation.

NOTE: Estimates are net of reduced income and payroll tax revenues.

Broad-based energy taxes fall into three types: a carbon tax, a Btu tax, and an ad valorem tax. A tax on the carbon content of fossil fuels (coal, oil, and natural gas) would help to reduce global warming by reducing carbon emissions. The tax, however, would be relatively harsh on coal-producing regions and regions that generate more electricity from coal than from other fuels. A tax on the heat content of fuels (measured in British thermal units, or Btus) that raised the same revenue would be more regionally neutral but would be less effective in reducing carbon emissions. An ad valorem tax on energy raising the same amount of revenue would increase energy prices in a nondistortionary way, but would also be less effective in reducing carbon emissions than a carbon tax. None of those options would significantly reduce U.S. dependence on foreign oil.

Broad-based energy taxes also would have adverse distributional effects because families with lower annual income spend a larger share of their income on energy than families with higher income. The distributional effects of energy taxes are not generally very different, however, from those of a general consumption tax, such as a value-added tax (see REV-34), which would not further environmental goals.

All three options would cause a small one-time increase in the U.S. general price level and an offsetting one-time decline in the dollar's foreign exchange value. The prices of energy-intensive goods would increase more than the general price increase, and the prices of goods that are not energy intensive would increase less. As a result, the prices of goods produced in the United States that are energy intensive--such as aluminum and chemicals--would rise when valued in foreign currency, making those U.S. products less competitive in world markets. Similarly, the prices of goods produced in the United States that are not energy intensive would fall when valued in foreign currency, making them more competitive in world markets.

To alleviate the adverse effects on the domestic energy and energy-intensive industries, the United States could institute border adjustments on a limited or extensive basis. A limited border adjustment might levy the energy tax on imported energy and rebate the tax on exported energy. All three options make that adjustment. The adjustment eases the impact on the domestic energy industry, but not the impact on domestic producers of energy-intensive goods. More extensive border adjustments on the energy content of all goods would also mitigate the adverse effects on energy-intensive

industries. However, they would be complicated and costly to administer and might violate the General Agreement on Tariffs and Trade. Therefore, they are not included in these options.

Impose a Tax on the Carbon Content of Fossil Fuels. A tax of $19.50 per ton of carbon content (in 1998 dollars) of coal, oil, and natural gas, if it was indexed for inflation, would raise about $100 billion from 1998 through 2002. The relative carbon content of the three fossil fuels would dictate the specific tax rate for each fuel. That tax rate, based on average carbon content, is equivalent to a tax of approximately $12 per ton of coal, $2.50 per barrel of oil, and $0.30 per thousand cubic feet of natural gas (in 1998 dollars).

Imposing a carbon-based tax at the minemouth, wellhead, or dockside for imports could discourage the use of fossil fuels and also encourage switching from higher carbon-emitting fuels to lower ones, thereby reducing subsequent emissions of carbon dioxide (CO_2). The Congress could impose higher tax rates on fossil fuels than assumed in this option. It could, for example, impose taxes either at levels that would discourage future increases in CO_2 emissions or at levels that would reduce emissions from current amounts by some target date.

Recent scientific evidence on the potential for global warming through an intensified greenhouse effect has prompted international concern about the emissions of greenhouse gases such as CO_2. The United States, along with some 150 nations, signed a climate treaty at the June 1992 "Earth Summit" conference in Brazil. Limiting emissions of greenhouse gases by developed countries in 2000 to 1990 levels was one key objective. In 1993, the Administration announced its Climate Change Action Plan for reducing greenhouse gases through a set of 40 voluntary actions by the private sector.

U.S. action, however, would not significantly reduce global CO_2 concentrations in the atmosphere if other countries did not make similar efforts. In addition, since scientists do not fully understand how emissions of greenhouse gases affect atmospheric concentrations, even reducing CO_2 emissions significantly may not prevent global warming. Moreover, a tax that significantly reduced emissions could impose economic costs that exceeded the benefits of such a policy. Adjusting to lower energy use would be costly, especially in energy extracting and processing industries and in energy-intensive manufacturing sectors. Furthermore, other means of controlling greenhouse gases could be adopted. Also, the cost of carrying out emission-control strategies in the future may be much lower as a result of improvements in technology. Thus, waiting to restrict emissions may be more efficient.

Compared with the other broad-based energy tax options, the carbon tax would impose greater costs on colder regions of the country, like the Northeast and Midwest, and on regions that produce electricity primarily from coal. Coal-producing regions might also be hurt relatively more as utilities switched from coal to other energy sources to produce electricity.

Impose a Tax on the Heat Content of All Fuel Sources. A tax of 33 cents per million Btus (in 1998 dollars) imposed on all energy sources and indexed for inflation would also raise about $100 billion from 1998 through 2002. The relative heat content of coal, oil, and natural gas would dictate the specific tax rate for each fuel. That tax rate, based on average heat content, is equivalent to a tax of approximately $7.00 per ton of coal, $1.80 per barrel of oil, and $0.35 per thousand cubic feet of natural gas (in 1998 dollars).

Under this option, the change in relative prices between fossil fuels is similar to the change in relative prices under the carbon tax option because the carbon content of fuel is closely related to the heat content of fossil fuels. On average, the tax rates in this option are lower than those under the carbon tax option because the tax base is broader, including nuclear, hydropower, and other renewable resources. Nonetheless, the tax rate on natural gas is higher than under a carbon tax because the heat content is higher relative to the carbon content for natural gas than for coal and petroleum. Because the average price increases for fossil fuels would be smaller under a Btu tax than under a carbon tax, the reduction in CO_2 emissions would not be quite as large as under the option for a carbon tax.

The tax would be easiest to administer if the Internal Revenue Service (IRS) collected it at the points where fossil fuels enter the economy--minemouth, wellhead, or dockside for imports--because that would minimize the number of taxpayers. The tax would need to be imposed on fuel used in the fuel production and dis-

tribution industries to capture all of the energy consumed. If the tax was not imposed on alternative fuels --including hydroelectricity, nuclear, geothermal, and synthetic fuels--then the regional disparities of the tax would be magnified. For example, the Northwest generates more electricity from hydropower than other regions of the country.

The House of Representatives passed one version of a modified Btu tax in 1993. The Congress did not approve that option, however.

Impose an Ad Valorem Tax on All Fuel Sources. A tax of 3.8 percent levied at the retail level on all forms of energy would also raise about $100 billion over the 1998-2002 period. An ad valorem tax applied at the retail level would leave the relative prices of different energy sources unchanged and therefore would not encourage consumers to switch from one form of energy to another. As a result, it would not decrease CO_2 emissions as much as a carbon tax for the same revenue increase. In addition, enforcement would be relatively costly with such a tax because the IRS would collect it from a large number of retailers. If the IRS collected the tax at an earlier stage of the distribution process, tax enforcement would be less costly, but the tax would then affect relative energy prices because different fuels have different markups at the retail level.

REV-36 INCREASE EXCISE TAXES ON TOBACCO AND ALCOHOLIC BEVERAGES

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Increase the Cigarette Tax to 48 Cents per Pack	2.6	3.4	3.5	3.5	3.5	16.5
Increase the Cigarette Tax to 99 Cents per Pack	6.4	8.4	8.5	8.6	8.7	40.6
Increase All Alcoholic Beverage Taxes to $16 per Proof Gallon	3.6	4.4	4.4	4.4	4.4	21.2
Index Cigarette and Alcohol Tax Rates for Inflation	0.2	0.5	0.7	1.1	1.3	3.8

SOURCE: Joint Committee on Taxation.

NOTE: Estimates are net of reduced income and payroll tax revenues.

Federal alcohol and tobacco taxes raised about $13 billion in 1996, including $7 billion from taxes on distilled spirits, beer, and wine and $6 billion from taxes on tobacco. Together they represented nearly one-quarter of revenues from all excise taxes and about 1 percent of total federal revenues.

Smoking and drinking can create costs to society that the prices of tobacco and alcoholic beverages do not reflect. Examples of those "external costs" include higher health insurance costs to cover the medical expenses linked to smoking and drinking, the effects of cigarette smoke on the health of nonsmokers, and the loss of lives and property in alcohol-related accidents.

By raising the price of tobacco and alcoholic beverages, excise taxes can result in consumers' paying the full cost for smoking and drinking. If excise taxes lead to reduced consumption of tobacco and alcoholic beverages, then increasing them would decrease the total external costs that smoking and drinking produce. If those external costs primarily come from heavy or abusive consumption, however, higher taxes on tobacco and alcoholic beverages could unduly penalize moderate and infrequent smokers and drinkers. Furthermore, some research suggests that, at least for tobacco, current taxes may more than adequately compensate for the external costs that smokers impose on society.

Increasing excise taxes to reduce consumption may be desirable regardless of the effect on external costs if consumers are either unaware of or underestimate the harm that their smoking and drinking does to them. If most consumers of cigarettes overestimate rather than underestimate the risks involved with smoking, as some studies have shown, then additional taxes would not be warranted. Teenagers, however, may not be prepared to evaluate the long-term effects of smoking and drinking. Evidence suggests that teenage smoking and drinking declines in response to higher prices for tobacco and alcoholic beverages. A number of national medical organizations have supported a substantial increase in the existing federal excise tax on tobacco in the interests of reducing teenage smoking.

Taxes on tobacco and alcoholic beverages are regressive when compared with annual family income; that is, such taxes are a greater percentage of income for low-income families than for middle- and upper-income families.

Increase the Cigarette Tax. The current federal excise tax on cigarettes is 24 cents per pack. Raising it to 48 cents a pack would increase net revenue by $16.5 billion between 1998 and 2002. Raising it to 99 cents a pack, as included in President Clinton's 1993 Health Security Act, would increase net revenues by about $40 billion between 1998 and 2002.

Increase All Alcoholic Beverage Taxes. Current federal excise taxes on beer and wine remain much lower than the federal excise tax on distilled spirits in terms of the tax per ounce of ethyl alcohol. The current tax on distilled spirits of $13.50 per proof gallon results in a tax of about 21 cents per ounce of alcohol. The current tax on beer of $18 per barrel results in a tax of about 10 cents per ounce of alcohol (assuming an alcoholic content for beer of 4.5 percent), and the current tax on table wine of $1.07 per gallon results in a tax of about 8 cents per ounce of alcohol (assuming an average alcoholic content of 11 percent).

Increasing the federal excise tax to $16 per proof gallon for all alcoholic beverages would raise about $21 billion between 1998 and 2002. A tax of $16 per proof gallon would result in a tax of about 25 cents per ounce of ethyl alcohol. It would raise the tax on a 750-milliliter bottle of distilled spirits from about $2.14 to $2.54, the tax on a six-pack of beer from about 33 cents to 81 cents, and the tax on a 750-milliliter bottle of table wine from about 21 cents to 70 cents.

Index Cigarette and Alcohol Tax Rates for Inflation. Indexing cigarette and alcoholic beverage tax rates annually for inflation during the preceding year would raise nearly $4 billion between 1998 and 2002. Indexing those taxes would prevent inflation from eroding real tax rates and would avoid the need for abrupt increases in the future.

An alternative to indexing would be to convert current unit taxes on quantities of those goods to ad valorem taxes, which equal a percentage of the manufacturer's price. That method would link tax revenues to price increases, although it would tie revenues to the price of taxed goods, not the general price level. A shortcoming of the ad valorem tax is that it might create incentives for manufacturers to lower sales prices artificially to company-controlled wholesalers in order to avoid part of the tax.

REV-37 INCREASE TAXES ON PETROLEUM AND MOTOR FUELS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Impose an Excise Tax on Domestic and Imported Oil ($5 per barrel)	7.9	19.9	20.2	20.5	20.8	89.3
Impose an Oil Import Fee ($5 per barrel)	2.9	11.8	12.3	12.8	13.3	53.1
Increase Motor Fuel Excise Taxes by 12 Cents per Gallon	10.3	13.6	13.2	13.1	13.2	63.4

SOURCE: Joint Committee on Taxation.

NOTE: Estimates are net of reduced income and payroll tax revenues.

Increasing petroleum taxes could raise significant amounts of revenue, encourage conservation by making petroleum more expensive, reduce pollution, and decrease the country's dependence on foreign oil suppliers. The United States depends on foreign sources for about half of its oil and about one-fifth of its total energy. Experience illustrates that such dependence on foreign sources exposes the U.S. economy to potential interruptions in petroleum supplies and to volatile petroleum prices.

Imposing new or higher petroleum taxes would raise petroleum prices and reduce consumption, thus helping to promote conservation. To the extent that taxes on oil reduced the demand for imported oil, foreign suppliers would absorb part of the tax through lower world oil prices. To the extent that petroleum taxes reduced petroleum consumption, the taxes would also reduce carbon dioxide emissions and could, therefore, contribute to efforts to reduce global warming.

Petroleum taxes would have different effects on taxpayers in different parts of the country and with different incomes. Taxes that increased the relative price of fuel oil would have the greatest impact on consumers in the Northeast, and taxes that increased the relative price of gasoline would have the greatest impact on consumers in the West. In addition, taxes on gasoline and other petroleum products absorb a greater percentage of income for low-income families than for middle- and upper-income families.

Taxing petroleum is not the only way of reducing dependence on foreign oil supplies. Stockpiling oil would arguably be a better way of coping with the risks of increased dependence on imports because it would not artificially reduce current energy use by households and businesses. That argument is based on the premise that, aside from the problem of interruptions in supply, world oil prices accurately reflect real resource costs and thus already provide an appropriate incentive to conserve.

Impose an Excise Tax on Domestic and Imported Oil. An excise tax of $5 per barrel on all crude oil and refined petroleum products--both domestically produced and imported--would raise revenues by about $90 billion from 1998 through 2002. It could increase the price of a gallon of gasoline or fuel oil by as much as 12 cents.

A tax on oil would increase the price that consumers must pay, giving them an incentive to use less oil either through conservation efforts or by switching to an alternative source of energy such as natural gas or coal. The tax would cause oil reserves to decline in value and coal and gas reserves to increase in value. Those shifts in value would discourage exploring for

and producing oil. At the same time, it would encourage producing coal and natural gas.

An oil tax, whether on all oil or only imported oil, would raise the relative costs for industries that use oil as their primary production input (for example, the petrochemical and paint industries). Consequently, domestic companies in those industries would find it more difficult to compete with foreign companies that would pay less for oil. To ameliorate that loss in competitiveness, imposing the same tax rate on the oil content of competing imports would be necessary. Such a tax would be cumbersome to design and administer and may violate the General Agreement on Tariffs and Trade.

Impose an Oil Import Fee. As an alternative to an excise tax on all oil, the Congress could impose the tax only on imported crude oil and refined petroleum products. An oil import fee of $5 per barrel would raise revenues by about $53 billion from 1998 through 2002.

An oil import fee would allow domestic suppliers to charge a higher price and still remain competitive with imports, providing an incentive to increase domestic crude oil production and a windfall to some domestic oil producers. Like the tax on all oil, the fee would also maintain incentives for conservation by increasing energy prices.

An oil import fee would reduce U.S. dependence on foreign oil in the short term, although in the long term it might increase dependence by depleting U.S. oil supplies faster. Domestic and foreign oil are relatively close substitutes, and therefore, the difference in the prices consumers would pay for them would be slight. But foreign producers would receive a lower net price than domestic producers because of the fee. A large portion of that difference between the net price that domestic and foreign producers would receive represents a transfer of income from domestic consumers to domestic producers. Consequently, the federal government would receive only about half of the increase in consumers' expenditures for oil under an import fee because the United States imports nearly half of the oil it consumes and demand is insensitive to price in the short run.

Because an oil import fee would reduce U.S. demand for imported oil, important U.S. trading partners might object to it. Under the terms of the United States-Canada Free Trade Agreement, Canadian oil imports would be exempt from an import fee. However, a similar exemption does not apply to Mexican oil under the North American Free Trade Agreement. Because imports from Canada now account for about 15 percent of U.S. oil imports, the Canadian exemption reduces the fee's revenue potential substantially. Legislation imposing a fee would require special rules to prevent other countries from avoiding the tax by shipping oil through Canada.

Increase Motor Fuel Excise Taxes. Federal motor fuel taxes are currently 18.3 cents per gallon of gasoline and 24.3 cents per gallon of diesel fuel. Revenue from a portion of the tax (4.3 cents per gallon) goes into the general fund. The remaining revenue goes into the Highway Trust Fund and several related trust funds. State governments also impose gasoline and diesel taxes, ranging from 7.5 cents to 34 cents per gallon.

Many analysts consider the overall tax to be too low. In comparison with motor fuel tax rates in other countries, many of which are well over $1 a gallon, U.S. tax rates are still among the lowest in the world. The average national price of all grades of gasoline is still 10 cents to 15 cents per gallon cheaper than it was in March 1981, when it reached a peak of about $1.40 per gallon. In real terms, that represents a decline of nearly 50 percent. If the price of gasoline had remained constant at the real level it reached in 1981, the price would now be around $2.40 per gallon. Therefore, an additional tax of 12 cents or even 50 cents per gallon would not put the total cost of gasoline above what consumers have already experienced in real terms.

A tax increase would reduce consumption of gasoline and diesel fuel by encouraging people to drive less or purchase more fuel-efficient cars and trucks. In addition, the tax would offset, though imperfectly, the costs of pollution and road congestion that automobile use produces. A rate increase on motor fuel taxes would not adversely affect U.S. producers relative to foreign producers because final consumers and the domestic transportation industry purchase most of the motor fuel.

Increasing tax rates on motor fuels would impose an added burden on the trucking industry and on people who commute long distances by car, who are not neces-

sarily the highway users who impose the highest costs of pollution and congestion on others. Pollution and congestion costs are much higher in densely populated areas, primarily in the Northeast and coastal California, whereas per capita consumption of motor fuel is highest in rural areas.

A 12 cent increase would raise revenue by about $13 billion per year. It would raise the total federal tax to 30.3 cents per gallon.

Some people have proposed even larger tax increases, such as 50 cents per gallon. An increase that large would produce significant adjustment costs for people and businesses who have based decisions about where they live and work and their choice of vehicle on low gasoline prices. Phasing in the tax increase, however, would reduce those costs by allowing businesses and consumers more time to adjust. Five successive annual 10 cent increases would raise about $52 billion per year after being fully phased in and nearly $150 billion from 1998 through 2002.

To reduce the deficit, the Congress could allocate the increased revenues to the general fund--as it did with a portion of the added revenues from the rate increases in 1990 and 1993--rather than using the additional revenues to finance further highway spending.

REV-38 IMPOSE EXCISE TAXES ON WATER POLLUTANTS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Impose a Tax on Biological Oxygen Demand	1.2	1.7	1.6	1.6	1.5	7.6
Impose a Tax on Toxic Water Pollutants	0.2	0.2	0.2	0.2	0.2	1.0

SOURCE: Joint Committee on Taxation.

NOTE: Estimates are net of reduced income and payroll tax revenues.

Major facilities that discharge pollutants directly into water or indirectly into sewer systems are currently subject to regulations that specify pollution abatement technology or impose concentration limits on their discharges. Taxes on water pollutants discharged by those facilities could provide a significant source of revenue and could encourage further reductions in pollution below the level that current regulations require. Generally, firms subject to water pollution standards do not pay taxes or fees on effluents (discharges) that regulations still allow.

According to a 1994 survey of water quality conducted by the Environmental Protection Agency (EPA), about 36 percent of the surveyed miles of river fail to meet water quality standards at some time during the year. Two types of water pollutants that contribute to this failure are oxygen-depleting substances and toxics. Biological oxygen demand (BOD) measures the effect of pollutants that encourage algae growth, which in turn depletes oxygen necessary to sustain aquatic life. (One BOD equals 1 milligram of oxygen consumed per 2.2 pounds of effluent.) Harmful levels of toxic chemicals and metals can persist and accumulate in the environment because they do not readily break down in natural ecosystems. One option is to impose a tax on BOD discharges. A second option is to impose a tax of varying rates on certain toxic discharges.

Taxes can reduce pollution in a cost-effective manner because they encourage firms with the lowest abatement costs to reduce pollution, while allowing firms with high abatement costs to continue polluting and pay the tax. Reductions in discharges caused by the tax would be economically efficient if the additional abatement costs were less than or equal to the social benefits from reduced pollution levels. However, accurate estimates of additional social benefits from reducing pollution levels do not exist in many cases. In addition, imposing a tax on one class of pollutants might reduce other pollutants because some wastewater treatment processes reduce several pollutants simultaneously. However, the tax option might raise constitutional issues concerning federal taxation of local governments, thereby requiring direct taxation of primary sources that discharge to publicly owned treatment works (POTWs) rather than taxing the POTWs themselves.

Tax on Biological Oxygen Demand. Most of the high-volume BOD dischargers (sometimes referred to as point sources) are POTWs, paper and pulp mills, food processors, metal producers, and chemical plants. Discharges by point sources total about 10.6 million pounds of effluent per day, and publicly owned treatment works discharge about 9.6 million pounds of that amount.

The cost of controlling discharges at POTWs and many industries subject to the Clean Water Act regulations averages about 50 cents to 75 cents per pound of effluent removed. A charge on BOD discharges could encourage manufacturing facilities and POTWs that face lower abatement costs to reduce pollution. Assuming effluents record an average concentration of 22

BOD, a tax of about 65 cents per pound of effluent discharged would raise $7.6 billion from 1998 through 2002.

The costs of administering a BOD water pollution excise tax would be small because allowable levels of BOD discharges are specified in the permits that state and local governments issue to every source of water pollution. Levying a tax on effluents from POTWs, as well as from large industrial dischargers, would ensure that the tax base included all of the largest dischargers of BOD. A recent report on water quality submitted to the EPA by states, tribes, and other jurisdictions ranks municipal sewage treatment plants as the second highest source of impairment to water quality for rivers, lakes, and estuaries (agriculture and urban runoff were ranked as number one). If a tax could not be levied for constitutional reasons directly on POTW discharges, the POTWs themselves could collect the tax from polluters that discharge into sewer systems.

Tax on Toxic Water Pollutants. Manufacturers in the United States discharged 66 million pounds of toxics into water directly in 1994 and more than 250 million pounds of toxics into water indirectly through sewers. Toxic pollutants generally include organic chemicals (such as solvents and dioxins), metals (such as mercury and lead), and pesticides. Those toxics may pose a threat to the aquatic environment and to human health.

The amount of environmental harm that toxic water pollutants cause depends on their toxicity. The EPA has devised a weighing method to indicate the toxicity of various pollutants. Using that weighing system makes it possible to measure the quantities of different types of toxics by their "toxic pound equivalents," which the EPA defines as the pounds of the pollutant multiplied by its toxic weight. This option adopts tax rates developed by the Congressional Research Service (CRS) in a study on the discharges of manufacturing firms in 1987. CRS defined five categories of pollutants based on their toxicities. The tax rates varied from 0.65 cents per pound for the least toxic category of pollutants to $63.40 per pound for the most toxic category. Those rates correspond to a charge of $32.35 for the equivalent of each toxic pound. The variable tax rates provide firms with a greater incentive to reduce their most toxic discharges.

According to the EPA, the cost of controlling the equivalent of another toxic pound varies among industries, ranging from $1.50 to $606.00 (in 1991 dollars). The tax, therefore, could encourage industries and firms with low abatement costs to reduce their toxic discharges and would raise $1 billion from 1998 through 2002.

The Internal Revenue Service could use information that the EPA's Toxic Release Inventory (TRI) provides on toxic discharges by manufacturing firms to assess tax payments, or the EPA could collect the tax on behalf of the Internal Revenue Service. An important consideration, however, is that the accuracy of TRI data is questionable. The TRI contains self-reported data, and many facilities that meet the reporting requirements fail to file reports or file inaccurate ones. To improve the accuracy of the TRI database and enhance enforcement, frequent auditing would be necessary.

REV-39 IMPOSE EXCISE TAXES ON AIR POLLUTANTS

Addition to Current-Law Revenues	Annual Added Revenues (Billions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
Stationary Sources						
Impose a Tax of $300 per Ton on Sulfur Dioxide	2.4	3.5	3.3	3.1	2.9	15.2
Impose a Tax of $3,000 per Ton on Nitrogen Oxides	15.2	21.8	20.6	19.7	19.1	96.4
Impose a Tax of $1,900 per Ton on Particulate Matter	2.2	3.2	3.0	2.9	2.8	14.1
Impose a Tax of $4,000 per Ton on Volatile Organic Compounds	26.2	37.7	35.5	34.1	33.0	166.5
Mobile Sources						
Impose a One-Time Emission Tax Averaging $250 per Vehicle on New Automobiles and Light Trucks	1.6	2.3	2.1	2.0	1.9	9.9

SOURCE: Joint Committee on Taxation.

NOTE: Estimates are net of reduced income and payroll tax revenues.

The Clean Air Act requires the Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards designed to protect public health and welfare. The EPA defines acceptable levels for six air pollutants: sulfur dioxide (SO_2), nitrogen oxides (NO_x), ozone (O_3), particulate matter (PM-10), carbon monoxide (CO), and lead (Pb). The pollutants SO_2 and NO_x are considered primarily responsible for acid rain, which the EPA believes degrades surface waters, damages forests and crops, and potentially increases the incidence of respiratory ailments. Large industrial sources, notably coal-fired electric utilities, emit significant quantities of those pollutants. Industrial production and the use of automobiles and trucks emit NO_x and volatile organic compounds (VOCs), which combine with sunlight and other compounds to produce ozone pollution. Electric utilities and motor vehicles emit particulate matter when they burn fossil fuels. Particulate matter can carry heavy metals and cancer-causing organic compounds into the lungs, thus increasing the incidence and severity of respiratory diseases. Carbon monoxide is produced primarily by motor vehicles and residential woodburning, and it can also pose direct health hazards. Exposure to lead may cause neurological disorders and cardiovascular disease. Discharges of lead were significantly reduced with the phaseout of leaded gasoline. In 1994, however, about 62 million people lived in areas that did not meet the EPA's National Ambient Air Quality Standards because of unacceptable levels of at least one of the six principal pollutants.

With some minor exceptions, firms subject to air pollution standards must incur the costs needed to reduce emissions to comply with regulations. Most firms do not, however, pay taxes or fees on emissions that regulations still allow, although major point sources are expected to pay approximately $400 million annually in

user fees to cover program costs of state operation permits under the Clean Air Act Amendments of 1990. The 1990 amendments also adopted a new acid rain control program that introduces a market-based system for emission allowances to reduce SO_2 emissions. An emission allowance is a limited authorization to emit a ton of SO_2. Affected electric utilities are allotted tradable allowances based on their past fuel use and statutory limits on emissions. Once the allowances are allotted, the act requires that annual SO_2 emissions not exceed the number of allowances held by each utility plant. Firms may trade allowances among each other, bank them for future use, or purchase them through periodic auctions held by the EPA. The market for allowances is structured to encourage firms with relatively low costs of abatement to reduce their emissions and sell surplus allowances to firms that have relatively high costs of abatement.

The 1990 Clean Air Act Amendments strengthened components of the earlier law for mobile sources of pollution. The tailpipe standards for cars, buses, and trucks were tightened, and inspection and maintenance programs were expanded to include more regions with pollution problems as well as to allow for more stringent tests. The amendments also introduced several regulations to reduce air pollution from mobile sources. The act mandated that improved gasoline formulations be sold in some polluted cities to reduce levels of carbon monoxide and ozone. It also provided new programs that set low emission standards for vehicles to encourage the introduction of even cleaner cars and fuels. Despite the progress to date in controlling air pollution from motor vehicles, mobile sources continue to have a significant impact on national air quality. On average nationwide, highway motor vehicles contribute one-quarter of all VOC emissions, almost one-third of NO_x emissions, and over 60 percent of CO emissions. A tax related to emissions from mobile sources could provide an additional incentive for consumers to purchase cleaner cars and trucks.

The incremental cost of controlling pollution from stationary sources varies, given the numerous sources. The four options that tax pollution from stationary sources would base the tax rates on an estimate of the average cost of reducing an additional ton of pollution. Consequently, some firms with low abatement costs might reduce pollution below allowable standards. The option that taxes emissions from mobile sources could also reduce pollution levels. (See REV-35 and REV-37 for other taxes that might reduce emissions of air pollutants.) Reductions in emissions as a result of the taxes would be economically efficient if the additional abatement costs were less than or equal to the social benefits. However, accurate estimates of additional social benefits from reducing pollution levels do not exist in many cases. The revenue estimates for the options discussed below all assume that some reduction in emissions occurs as a result.

Tax Emissions of SO_2 and NO_x from Stationary Sources. Imposing taxes of $300 per ton of SO_2 emissions and $3,000 per ton of NO_x emissions from all stationary sources would raise roughly $15 billion for SO_2 and $96 billion for NO_x from 1998 through 2002. Basing the tax on the terms granted in air pollution permits, which all polluting firms must acquire, would minimize the costs of administration for the Internal Revenue Service. The present monitoring and reporting system for stationary sources that the EPA and state regulators operate could be used to enforce the tax.

The proposed tax on SO_2 could reduce pollution below the mandated amounts contained in the 1990 amendments. Some electric utilities and manufacturing plants might switch to coals with lower levels of sulfur because that would be less costly than paying the tax, and others might choose to operate their most heavily emitting plants less frequently or to install new SO_2 control devices. The tax system could interact with the tradable allowance system, thereby allowing the government to collect revenues based on emission levels and firms to collect the proceeds from the sale of allowances. (The average sale price of allowances would probably adjust downward in the event of a tax.) The tax on NO_x could also reduce emissions below mandated levels contained in the 1990 amendments if some firms adopt currently available abatement techniques whose capitalized costs are lower than the tax they would otherwise pay.

Tax Emissions of PM-10 from Stationary Sources. A tax of $1,900 per ton of particulate matter would raise about $14 billion from 1998 through 2002. Some electric utilities and manufacturing plants might install improved electrostatic precipitators, wet scrubbers, or other equipment that reduces PM-10 emissions to lower their tax burdens. This tax could be administered in the same manner as the taxes on SO_2 and NO_x.

Tax Emissions of VOCs from Stationary Sources. Stationary sources of volatile organic compounds range from huge industrial facilities such as chemical plants, petroleum refineries, and coke ovens to small sources such as bakeries and dry cleaners. Their vast number and diversity make it difficult to estimate emissions and the costs of abatement. A tax of $4,000 per ton on all VOC emissions from stationary sources might promote some abatement and would generate slightly over $165 billion in revenues from 1998 through 2002.

The advantage of a broad-based tax on VOCs is that it would capture small sources, which the EPA estimates are responsible for approximately 80 percent of all emissions from stationary sources. Because stationary sources emitting less than 2.5 tons of VOCs per year are not currently subject to federal regulation, a broad-based VOC tax would be administratively harder to carry out than a tax on large sources alone. Assessing the tax on small sources through technology-based estimates of emissions rather than measured emissions would reduce administrative costs but make the incentives less precise.

Tax Emissions of NO_x, VOCs, and CO from Mobile Sources. A one-time tax imposed on new automobiles and light trucks could be based on grams of NO_x, VOCs, and CO emitted per mile as estimated under the EPA certification tests for emissions that are required for every new vehicle. The tax could be administered like the "gas guzzler" excise tax. The EPA would determine the tail-pipe emissions for each new model of light-duty vehicles, and the tax would be based on those emission rates. The auto dealer would collect the tax on behalf of the Internal Revenue Service from the vehicle's purchaser.

Such a tax averaging $250 per new vehicle could raise $10 billion in revenues from 1998 through 2002. Vehicles made in earlier years have been excluded from the estimate because of the administrative problems of collecting a tax on older vehicles. A disadvantage of excluding them, however, is that vehicles from earlier years contribute a large share of the emissions from mobile sources. In addition, the tax would encourage people to delay purchases of new vehicles by raising their price.

Appendixes

Appendix A

Estimated Savings from the Administration's 1998 Request for Selected National Defense Options

In its fiscal year 1998 budget request, the Administration has proposed significant changes to its plan that would affect savings from some of the defense options presented in Chapter 2. Those savings are shown in Table A-1.

Table A-1.
Estimated Savings from the Administration's 1998 Plan for Selected Department of Defense Options

Savings from the 1998 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
DEF-03 REDUCE THE SCOPE OF DOE'S STOCKPILE STEWARDSHIP AND MANAGEMENT PROGRAM						
Budget Authority	378	517	279	317	356	1,848
Outlays	284	482	339	308	346	1,758
DEF-04 FOCUS THEATER MISSILE DEFENSE EFFORTS ON CORE SYSTEMS						
Budget Authority	664	703	738	644	800	3,549
Outlays	321	589	682	670	722	2,984
DEF-05 CANCEL THE NEW ATTACK SUBMARINE						
Budget Authority	2,496	-150	895	-516	1,769	4,494
Outlays	258	745	632	706	269	2,610

(Continued)

Table A-1.
Continued

Savings from the 1998 Plan	Annual Savings (Millions of dollars) 1998	1999	2000	2001	2002	Five-Year Cumulative Total
DEF-07 REDUCE PROCUREMENT OF DDG-51 DESTROYERS						
Budget Authority	551	660	777	879	-766	2,101
Outlays	27	127	274	431	491	1,350
DEF-09 CANCEL THE UPGRADE OF THE NAVY'S F/A-18 E/F FIGHTER AND BUY THE CURRENT MODEL						
Budget Authority	1,666	1,984	2,310	1,733	2,458	10,152
Outlays	232	869	1,554	1,861	1,975	6,490
DEF-10 CANCEL THE MARINE CORPS'S V-22 AIRCRAFT PROGRAM AND BUY CH-53 HELICOPTERS						
Budget Authority	687	813	821	1,413	1,731	5,465
Outlays	202	445	599	730	979	2,954
DEF-12 CANCEL THE AIR FORCE'S F-22 AIRCRAFT PROGRAM						
Budget Authority	1,117	2,402	2,823	3,594	4,350	14,285
Outlays	476	1,157	1,549	1,958	2,514	7,655
DEF-14 DEFER MODERNIZATION OF TACTICAL AIRLIFT						
Budget Authority	51	0	0	0	171	222
Outlays	3	12	17	11	15	58

Appendix B

Spending Options by Budget Function

050 National Defense

150 International Affairs

250 General Space, Science, and Technology

270 Energy

300 Natural Resources and Environment

350 Agriculture

370 Commerce and Housing Credit

400 Transportation

450 Community and Regional Development

500 Education, Training, Employment, and Social Services

550 Health

See Chapter 5 for short-term options for Medicaid.

570 Medicare

See Chapter 5 for short-term options.

600 Income Security

650 Social Security

700 Veterans Benefits and Services

750 Administration of Justice

800 General Government

920 Allowances and Multifunction Options

Glossary

This glossary defines economic and budgetary terms as they relate to this report. Some entries sacrifice precision for brevity and clarity to the lay reader. Where appropriate, sources of data for economic variables are indicated as follows:

- o BLS denotes the Bureau of Labor Statistics in the Department of Labor;
- o CBO denotes the Congressional Budget Office;
- o FRB denotes the Federal Reserve Board; and
- o NBER denotes the National Bureau of Economic Research.

adjustable-rate mortgage: Mortgage whose interest rate is not fixed for the life of the mortgage but varies in a predetermined way with movements in a specified market interest rate.

aggregate demand: Total purchases of a country's output of goods and services by consumers, businesses, government, and foreigners during a given period. (Bureau of Economic Analysis)

appropriation act: A statute under the jurisdiction of the House and Senate Committees on Appropriations that provides budget authority. Enactment generally follows adoption of authorizing legislation unless the authorization itself provides the budget authority. Currently, 13 regular appropriation acts are enacted each year. When necessary, the Congress may enact supplemental or continuing appropriations.

authorization: A substantive law that sets up or continues a federal program or agency. Authorizing legislation is normally a prerequisite for appropriations. For some programs, the authorizing legislation itself provides the authority to incur obligations and make payments.

Balanced Budget and Emergency Deficit Control Act of 1985: Also known as Gramm-Rudman-Hollings or the Balanced Budget Act, this law set forth specific deficit targets and a sequestration procedure to reduce spending if the targets were exceeded. The Budget Enforcement Act of 1990 established new budget procedures through fiscal year 1995 as well as revised targets, which exclude the Social Security trust funds. The Omnibus Budget Reconciliation Act of 1993 further extended various provisions of the Balanced Budget Act, without including fixed deficit targets beyond fiscal year 1995. See **discretionary spending caps** and **pay-as-you-go**.

baseline: A benchmark for measuring the budgetary effects of proposed changes in federal revenues or spending. As specified in the Budget Enforcement Act of 1990 (BEA), the baseline for revenues and entitlement spending generally assumes that laws now on the statute books will continue. The discretionary spending projections are based on the discretionary spending caps set by the BEA in 1995 through 1998. The *baseline with discretionary inflation* adjusts discretionary appropriations for inflation; the *baseline without discretionary inflation* does not.

***Blue Chip* consensus forecast:** The average of about 50 economic forecasts surveyed by Eggert Economic Enterprises, Inc.

budget authority: Legal authority to incur financial obligations that will result in the spending of federal government funds. Budget authority may be provided in an authorization or an appropriation act. Offsetting collections, including offsetting receipts, constitute negative budget authority.

budget deficit: Amount by which budget outlays exceed budget revenues during a given period.

Budget Enforcement Act of 1990 (BEA): Title XIII of the Omnibus Budget Reconciliation Act of 1990. This act amended both the Congressional Budget Act of 1974 and the Balanced Budget and Emergency Deficit Control Act of 1985. The BEA provided for new budget targets, sequestration procedures, pay-as-you-go procedures, credit reform, and various other changes. The discretionary spending caps and the pay-as-you-go process were extended through 1998 by the Omnibus Budget Reconciliation Act of 1993. See **discretionary spending caps** and **pay-as-you-go**.

budget function: One of 20 areas into which federal spending and credit activity are divided. National needs are grouped into 17 broad budget functions, including national defense, international affairs, energy, agriculture, health, income security, and general government. Three functions--net interest, allowances, and undistributed offsetting receipts--do not address national needs but are included to complete the budget.

budget resolution: A resolution, passed by both Houses of Congress, that sets forth a Congressional budget plan for the next five years. The plan must be carried out through subsequent legislation, including appropriations and changes in tax and entitlement laws. The resolution sets guidelines for Congressional action, but it is not signed by the President and does not become law. The Congressional Budget Act of 1974 established a number of mechanisms that are designed to hold spending and revenues to the targets established in the budget resolution.

budgetary resources: All sources of budget authority that are subject to sequestration. Budgetary resources include new budget authority, unobligated balances, direct spending authority, and obligation limitations. See **sequestration**.

business cycle: Fluctuations in overall business activity accompanied by swings in the unemployment rate, interest rates, and profits. Over a business cycle, real activity rises to a peak (its highest level during the cycle), then falls until it reaches its trough (its lowest level following the peak), whereupon it starts to rise again, defining a new cycle. Business cycles are irregular, varying in frequency, magnitude, and duration. (NBER)

capacity constraints: Limits on the amount of output that can be produced without also significantly increasing prices. Causes of capacity constraints include shortages of skilled labor or of capital needed for production.

capacity utilization rate: The seasonally adjusted output of the nation's factories, mines, and electric and gas utilities expressed as a percentage of their capacity to produce output. Capacity is defined as the greatest output a plant can maintain with a normal work pattern. (FRB)

capital: *Physical capital* is the output that has been set aside to be used in production rather than consumed. According to the national income and product accounts, private capital goods are composed of residential and nonresidential structures, producers' durable equipment, and business inventories. *Financial capital* is the funds raised by an individ-

ual, business, or government by issuing securities, such as a mortgage, stock certificate, or bond. *Human capital* is a term for education, training, health, and other attributes of the workforce that increase its ability to produce goods and services.

central bank: A government-established agency responsible for conducting monetary policy and overseeing credit conditions. The Federal Reserve System fulfills those functions in the United States.

chain-type GDP price index: An overall measure of the price level in which the calculation of the change in prices uses the composition of output in adjoining years. This price index is currently set to equal one in 1992. Because this measure uses the composition of output in adjoining years, it is a more accurate measure of the way in which price change affects economic welfare than either the GDP implicit deflator or the fixed-weighted GDP price index. Compare with **implicit deflator** and **fixed-weighted price index**. (Bureau of Economic Analysis)

chained (1992) GDP: A measure of real economic output (economic output adjusted to remove the effects of inflation) in which prices in adjoining years are used to calculate the growth rate for total output. Chained (1992) GDP is set to equal nominal GDP in 1992. Because this measure uses prices in recent periods, it is a more accurate measure of real growth than traditional constant-dollar measures that use prices for a specific base year. See **gross domestic product (GDP)** and **constant dollar**. (Bureau of Economic Analysis)

civilian unemployment rate: Unemployment as a percentage of the civilian labor force--that is, the labor force excluding armed forces personnel. (BLS)

commercial paper: Short-term, unsecured debt obligations that are issued by large corporations with good credit ratings and that are actively traded in financial markets. By selling such obligations, issuers of commercial paper borrow directly from the public rather than indirectly through financial intermediaries such as commercial banks.

compensation: All income due to employees for their work during a given period. Compensation includes wages and salaries as well as fringe benefits and employers' share of social insurance taxes. (Bureau of Economic Analysis)

constant dollar: Measured in terms of prices of a base period to remove the effects of inflation. Compare with **current dollar**.

consumer confidence: A measure of consumer attitudes and buying plans indicated by an index of consumer sentiment. One such index is constructed by the University of Michigan Survey Research Center based on surveys of consumers' views of the state of the economy and their personal finances, both current and prospective.

consumer durable goods: Goods bought by households for their personal use that, on average, last more than three years--for example, automobiles, furniture, or appliances.

consumption: Total purchases of goods and services during a given period by households for their own use. (Bureau of Economic Analysis)

cost of capital: The total expected rate of return that an investment must generate in order to provide investors with the prevailing market yield consistent with risk after accounting for corporate taxes (if applicable) and depreciation.

countercyclical: Acting to moderate the ups and downs of the business cycle.

CPI-U: An index of consumer prices based on the typical market basket of goods and services consumed by all urban consumers during a base period--currently 1982 through 1984. (BLS)

credit crunch: A significant, temporary decline in the normal supply of credit, usually caused by tight monetary policy or a regulatory restriction on lending institutions.

credit reform: A revised system of budgeting for federal credit activities that focuses on the cost of subsidies conveyed in federal credit assistance. The system was authorized by the Federal Credit Reform Act of 1990, which was part of the Budget Enforcement Act of 1990.

credit subsidies: The estimated long-term costs to the federal government of direct loans or loan guarantees calculated on the basis of net present value, excluding administrative costs and any incidental effects on governmental receipts or outlays. For direct loans, the subsidy cost is the net present value of loan disbursements minus repayments of interest and principal, adjusted for estimated defaults, prepayments, fees, penalties, and other recoveries. For loan guarantees, the subsidy cost is the net present value of the estimated payments by the government to cover defaults and delinquencies, interest subsidies, or other payments, offset by any payments to the government, including origination and other fees, penalties, and recoveries. See **present value**.

currency value: See **exchange rate**.

current-account balance: The net revenues that arise from a country's international sales and purchases of goods and services, net international transfers (public or private gifts or donations), and net factor income (primarily capital income from foreign-located property owned by residents minus capital income from domestic property owned by nonresidents). The current-account balance differs from net exports in that it includes international transfers and net factor income. (Bureau of Economic Analysis)

current dollar: Measured in the dollar value--reflecting prices that prevailed then--of the period under consideration. Compare with **constant dollar**.

cyclical deficit: The part of the budget deficit that results from cyclical factors rather than from underlying fiscal policy. The cyclical deficit reflects the fact that, when GDP falls, revenues automatically fall and outlays automatically rise. By definition, the cyclical deficit is zero when the economy is operating at potential GDP. Compare with **standardized-employment deficit**. (CBO)

debt held by the public: Debt issued by the federal government and held by nonfederal investors (including the Federal Reserve System).

debt restructuring: Changing the characteristics, such as maturity or interest rate, of an entity's outstanding debt. Such changes can be effected by issuing long-term debt and retiring short-term debt (or vice versa), or by negotiating with creditors.

debt service: Payment of scheduled interest obligations on outstanding debt.

deflator: See **implicit deflator**.

deposit insurance: The guarantee by a federal agency that an individual depositor at a participating depository institution will receive the full amount of the deposit (up to $100,000) if the institution becomes insolvent.

depository institutions: Financial intermediaries that make loans to borrowers and obtain funds from savers by accepting deposits. Depository institutions are commercial banks, savings and loan institutions, mutual savings banks, and credit unions.

depreciation: Decline in the value of a currency, financial asset, or capital good. When applied to a capital good, depreciation usually refers to loss of value because of obsolescence or wear.

direct spending: The Budget Enforcement Act of 1990 defines direct spending as (a) budget authority provided by an authorization, (b) entitlement authority (including mandatory spending contained in appropriation acts), and (c) the Food Stamp program. A synonym is **mandatory spending**. Compare with **discretionary spending**.

discount rate: The interest rate the Federal Reserve System charges on a loan that it makes to a bank. Such loans, when allowed, enable a bank to meet its reserve requirements without reducing its loans.

discouraged workers: Jobless people who are available for work but who are not actively seeking it because they think they have poor prospects of finding jobs. Because they are not actively seeking jobs, discouraged workers are not counted as part of the labor force or as being unemployed. (BLS)

discretionary spending: Spending for programs whose funding levels are determined through the appropriation process. The Congress has the discretion each year to determine how many dollars will be devoted to continuing current programs and funding new ones. Compare with **direct spending**.

discretionary spending caps: Annual ceilings through fiscal year 1998 on budget authority and outlays for discretionary programs defined in the Balanced Budget Act of 1985, as amended by the Budget Enforcement Act of 1990 and the Omnibus Budget Reconciliation Act of 1993. One cap covers appropriations from the Violent Crime Reduction Trust Fund. A separate cap covers all other (that is, general-purpose) discretionary spending. Discretionary spending caps are enforced through Congressional rules and sequestration procedures.

disposable (personal) income: Income received by individuals, including transfer payments, minus personal taxes and fees paid to government. (Bureau of Economic Analysis)

domestic demand: Total purchases of goods and services, regardless of origin, by U.S. consumers, businesses, and governments during a given period. Domestic demand equals gross domestic product minus net exports. (Bureau of Economic Analysis)

entitlements: Programs that make payments to any person, business, or unit of government that seeks the payments and meets the criteria set in law. The Congress controls these programs indirectly by defining eligibility and setting the benefit or payment rules. Although the level of spending for these programs is controlled by the authorizing legislation, funding may be provided in either an authorization or an appropriation act. The best-known entitlements are the major benefit programs, such as Social Security and Medicare. See **direct spending.**

excess reserves: Total monetary reserves in excess of required reserves. See **monetary reserves** and **reserve requirements**.

exchange rate: The number of units of a foreign currency that can be bought with one unit of the domestic currency. (FRB)

excise tax: A tax levied on the purchase of a specific type of good or service, such as tobacco products or telephone services.

expansion: A phase of the business cycle that extends from a trough to the next peak. See **business cycle**. (NBER)

federal funds: See **trust fund**.

federal funds rate: Overnight interest rate at which financial institutions borrow and lend monetary reserves. A rise in the federal funds rate (compared with other short-term rates) suggests a tightening of monetary policy, whereas a fall suggests an easing. (FRB)

Federal Open Market Committee (FOMC): The group within the Federal Reserve System that determines the direction of monetary policy. The open market desk at the Federal Reserve Bank of New York implements the policy with open market operations--the purchase or sale of government securities--which influence short-term interest rates and the growth of the money supply. The FOMC is composed of 12 members, including the seven members of the Board of Governors of the Federal Reserve System and five of the 12 presidents of the regional Federal Reserve Banks.

Federal Reserve System: As the central bank of the United States, the Federal Reserve is responsible for conducting the nation's monetary policy and overseeing credit conditions.

final sales to domestic purchasers: Gross domestic product minus both net exports and the change in business inventories during a given period. (Bureau of Economic Analysis)

financial intermediary: An institution that indirectly matches borrowers with lenders. For example, depository institutions, such as commercial banks or savings and loan institutions, lend funds that they have accepted from depositors. Nondepository institutions, such as life insurance companies or pension funds, lend or invest funds that they hold in reserve against future claims by policyholders or participating retirees.

financing account: Any account established under credit reform to finance the portion of federal direct loans and loan guarantees not subsidized by federal funds. Since these accounts are used only to finance the nonsubsidized portion of federal credit activities, they are excluded from the federal budget and considered a means of financing the deficit.

fiscal policy: The government's choice of tax and spending programs, which influences the amount and maturity of government debt as well as the level, composition, and distribution of national output and income. An "easy" fiscal policy stimulates the short-term growth of output and income, whereas a "tight" fiscal policy restrains their growth. Movements in the standardized-employment deficit constitute one overall indicator of the tightness or ease of federal fiscal policy; an increase relative to potential gross domestic product suggests fiscal ease, whereas a decrease suggests fiscal restriction. The President and the Congress jointly determine federal fiscal policy.

fiscal year: A yearly accounting period. The federal government's fiscal year begins October 1 and ends September 30. Fiscal years are designated by the calendar years in which they end--for example, fiscal year 1996 began October 1, 1995, and will end on September 30, 1996.

fixed-weighted price index: An index that measures the overall price level (compared with a base period) without being influenced by changes in the composition of output or purchases. Compare with **implicit deflator** and **chain-type GDP price index**.

GDP: See **gross domestic product**.

GDP gap: The difference between potential real GDP and real GDP, expressed as a percentage of potential real GDP. See **potential real GDP**.

GNP: See **gross national product**.

government purchases of goods and services: Purchases from the private sector (including compensation of government employees) made by government during a given period. Government purchases constitute a component of GDP,

but they encompass only a portion of all government expenditures because they exclude transfer payments (such as grants to state and local governments and net interest paid). (Bureau of Economic Analysis)

government-sponsored enterprises: Enterprises established and chartered by the federal government to perform specific financial functions, usually under the supervision of a government agency, but in all cases wholly owned by stockholders rather than the government. Major examples are the Federal National Mortgage Association, the Student Loan Marketing Association, and the Federal Home Loan Banks.

grants: Transfer payments from the federal government to state and local governments or other recipients to help fund projects or activities that do not involve substantial federal participation.

grants-in-aid: Grants from the federal government to state and local governments to help provide for programs of assistance or service to the public.

gross domestic product (GDP): The total market value of all goods and services produced domestically during a given period. The components of GDP are consumption, gross domestic investment, government purchases of goods and services, and net exports. (Bureau of Economic Analysis)

gross investment: A measure of additions to the capital stock that does not subtract depreciation of existing capital.

gross national product (GNP): The total market value of all goods and services produced in a given period by labor and property supplied by residents of a country, regardless of where the labor and property are located. GNP differs from GDP primarily by including the excess of capital income that residents earn from investments abroad over capital income that nonresidents earn from domestic investment.

implicit deflator: An overall measure of the price level (compared with a base period) given by the ratio of current-dollar purchases to constant-dollar purchases. Changes in an implicit deflator, unlike those in a fixed-weighted price index, reflect changes in the composition of purchases as well as in the prices of goods and services purchased. See **fixed-weighted price index** and **chain-type GDP price index**. (Bureau of Economic Analysis)

index: An indicator or summary measure that defines the overall level (compared with a base) of some aggregate--such as the general price level or total quantity--in terms of the levels of its components.

inflation: Growth in a measure of the general price level, usually expressed as an annual rate of change.

infrastructure: Government-owned capital goods that provide services to the public, usually with benefits to the community at large as well as to the direct user. Examples include schools, roads, bridges, dams, harbors, and public buildings.

inventories: Stocks of goods held by businesses either for further processing or for sale. (Bureau of Economic Analysis)

investment: *Physical investment* is the current product set aside during a given period to be used for future production; in other words, an addition to the stock of capital goods. As measured by the national income and product accounts, private domestic investment consists of investment in residential and nonresidential structures, producers' durable equipment, and the change in business inventories. *Financial investment* is the purchase of a financial security. *Investment in human capital* is spending on education, training, health services, and other activities that increase the productivity of the workforce. Investment in human capital is not treated as investment in the national income and product accounts.

labor force: The number of people who have jobs or who are available for work and are actively seeking jobs. *Labor force participation rate* is the labor force as a percentage of the noninstitutional population age 16 years or older. (BLS)

liquidating account: Any budgetary account established under credit reform to finance direct loan and loan guarantee activities that were obligated or committed before October 1, 1992 (the effective date of credit reform).

liquidity: The characteristic of an asset that permits it to be sold on short notice with little or no loss in value. Ordinarily, a shorter term to maturity or a lower risk of default will enhance an asset's liquidity.

long-term interest rate: The interest rate earned by a note or bond that matures in 10 or more years.

M2: A measure of the U.S. money supply that consists of the nonbank public's holdings of currency, traveler's checks, and checking accounts (collectively known as M1); small (less than $100,000) time and savings accounts; money market deposit accounts held at depository institutions; most money market mutual funds; overnight repurchase agreements; and overnight Eurodollar accounts held by U.S. residents. (FRB)

mandatory spending: Another term for **direct spending**.

marginal tax rate: The tax rate that applies to an additional dollar of taxable income.

means of financing: Ways to finance federal deficits or use federal surpluses. The largest means of financing is normally federal borrowing from the public, but other means of financing include any transaction that causes a difference between the federal (including off-budget) surplus or deficit and the change in debt held by the public. The means of financing include changes in checks outstanding and Treasury cash balances, seigniorage (that is, government revenue from the manufacture of money), and the transactions of the financing accounts established under credit reform.

means-tested programs: Programs that provide cash or services to people who meet a test of need based on income and assets. Most means-tested programs are entitlements--for example, Medicaid, the Food Stamp program, Supplemental Security Income, family support, and veterans' pensions--but a few, such as subsidized housing and various social services, are funded through discretionary appropriations.

merchandise trade balance: Net exports of goods. The merchandise trade balance differs from net exports by excluding exports and imports of services. (Bureau of Economic Analysis)

monetary policy: The strategy of influencing movements of the money supply and interest rates to affect output and inflation. An "easy" monetary policy suggests faster money growth and initially lower short-term interest rates in an attempt to increase aggregate demand, but it may lead to a higher rate of inflation. A "tight" monetary policy suggests slower money growth and higher interest rates in the near term in an attempt to reduce inflationary pressure by reducing aggregate demand. The Federal Reserve System conducts monetary policy in the United States.

monetary reserves: The amount of funds that banks and other depository institutions hold as cash or as deposits with the Federal Reserve System. See **reserve requirements**.

money supply: Private assets that can readily be used to make transactions or are easily convertible into assets that can. See **M2**.

NAIRU (nonaccelerating inflation rate of unemployment): The unemployment rate consistent with a constant inflation rate. An unemployment rate greater than the NAIRU indicates downward pressure on inflation, whereas a lower unemployment rate indicates upward pressure on inflation. Estimates of the NAIRU are based on the historical

relationship between inflation and the aggregate unemployment rate. CBO's procedures for estimating the NAIRU are described in Appendix B of *The Economic and Budget Outlook: An Update* (August 1994).

national income and product accounts (NIPAs): Official U.S. accounts that detail the composition of GDP and how the costs of production are distributed as income. (Bureau of Economic Analysis)

national saving: Total saving by all sectors of the economy: personal saving, business saving (corporate after-tax profits not paid as dividends), and government saving (budget surplus or deficit--indicating dissaving--of all government entities). National saving represents all income not consumed, publicly or privately, during a given period. (Bureau of Economic Analysis)

net exports: Exports of goods and services produced in a country minus its imports of goods and services produced elsewhere.

net interest: *In the federal budget*, net interest includes federal interest payments to the public as recorded in budget function 900. Net interest also includes, as an offset, interest income received by the government on loans and cash balances. *In the national income and product accounts* (NIPAs), net interest is the income component of GDP paid as interest--primarily interest that domestic businesses pay, minus interest they receive. The NIPAs treat government interest payments as transfers, so they are not part of GDP.

net national saving: National saving less depreciation of physical capital.

NIPAs: See **national income and product accounts**.

nominal: Measured in the dollar value (as in nominal output, income, or wage rate) or in market terms (as in nominal exchange or interest rate) of the period under consideration. Compare with **real**.

nonresidential structures: Primarily business buildings (such as industrial, office, and other commercial buildings) and structures (such as mining and well shafts). (Bureau of Economic Analysis)

off-budget: Spending or revenues excluded from the budget totals by law. The revenues and outlays of the two Social Security trust funds and the transactions of the Postal Service are off-budget and (except for discretionary Social Security administrative costs) are not included in any Budget Enforcement Act calculations.

offsetting receipts: Funds collected by the federal government that are recorded as negative budget authority and outlays and credited to separate receipt accounts. More than half of offsetting receipts are intragovernmental receipts that reflect agencies' payments to retirement and other funds on behalf of their employees; those receipts simply balance payments elsewhere in the budget. An additional category of receipts (proprietary receipts) come from the public and generally represent voluntary, business-type transactions. The largest items are the flat premiums for Supplementary Medical Insurance (Part B of Medicare), timber and oil lease receipts, and proceeds from the sale of electric power.

outlays: Spending to fulfill a federal obligation, generally by issuing a check or disbursing cash. Unlike outlays for other categories of spending, outlays for interest on the public debt are counted when the interest is earned, not when it is paid. Outlays may be for payment of obligations incurred in previous fiscal years or in the same year. Outlays, therefore, flow in part from unexpended balances of prior year budget authority and in part from budget authority provided for the current year.

pay-as-you-go (PAYGO): A procedure required in the Budget Enforcement Act of 1990 to ensure that, for fiscal years 1991 through 1995, legislation affecting direct spending and receipts did not increase the deficit. The pay-as-you-go

process was extended through fiscal year 1998 by the Omnibus Budget Reconciliation Act of 1993. Pay-as-you-go is enforced through Congressional rules and sequestration procedures.

peak: See **business cycle**.

personal saving: Saving by households. Personal saving equals disposable personal income minus spending for consumption and interest payments. *Personal saving rate* is personal saving as a percentage of disposable personal income. (Bureau of Economic Analysis)

point-year of unemployment: An unemployment rate that is 1 percentage point above the NAIRU for one year. For example, if the unemployment rate averaged 2 percentage points above the NAIRU for one and one-half years, that would be three point-years of unemployment. See **NAIRU**.

potential real GDP: The highest level of real GDP that could persist for a substantial period without raising the rate of inflation. CBO's calculation relates potential GDP to the nonaccelerating inflation rate of unemployment, which is the unemployment rate consistent with a constant inflation rate. (CBO)

present value: A single number that expresses a flow of current and future income (or payments) in terms of an equivalent lump sum received (or paid) today. The calculation of present value depends on the rate of interest. For example, given an interest rate of 5 percent, today's 95 cents will grow to $1 next year. Hence, the present value of $1 payable a year from today is only 95 cents.

private saving: Saving by households and businesses. Private saving is equal to personal saving plus after-tax corporate profits minus dividends paid. (Bureau of Economic Analysis)

producers' durable equipment: Primarily nonresidential capital equipment--such as computers, machines, and transportation equipment--owned by businesses. (Bureau of Economic Analysis)

productivity: Average real output per unit of input. *Labor productivity* is average real output per hour of labor. The growth of labor productivity is defined as the growth of real output that is not explained by the growth of labor input alone. *Total factor productivity* is average real output per unit of combined labor and capital inputs. The growth of total factor productivity is defined as the growth of real output that is not explained by the growth of labor and capital. Labor productivity and total factor productivity differ in that increases in capital per worker would raise labor productivity but not total factor productivity. (BLS)

program account: Any budgetary account that finances credit subsidies and the costs of administering credit programs.

real: Adjusted to remove the effects of inflation. *Real (constant-dollar) output* represents volume, rather than dollar value, of goods and services. *Real income* represents power to purchase real output. *Real data* are usually constructed by dividing the corresponding nominal data, such as output or a wage rate, by a price index or deflator. *Real interest rate* is a nominal interest rate minus the expected inflation rate. Compare with **nominal**.

receipt account: Any budget or off-budget account that is established exclusively to record the collection of income, including negative subsidies. In general, receipt accounts that collect money arising from the exercise of the government's sovereign powers are included as revenues, whereas the proceeds of intragovernmental transactions or collections from the public arising from business-type transactions (such as interest income, proceeds from the sale of property or products, or profits from federal credit activities) are included as offsetting receipts--that is, credited as offsets to outlays rather than included in receipts.

recession: A phase of the business cycle extending from a peak to the next trough--usually lasting six months to a year --and characterized by widespread declines in output, income, employment, and trade in many sectors of the economy. Real GDP usually falls throughout a recession. See **business cycle**. (NBER)

reconciliation: A process the Congress uses to make its tax and spending legislation conform with the targets established in the budget resolution. The budget resolution may contain reconciliation instructions directing certain Congressional committees to achieve deficit reduction through changes in tax or spending programs under their jurisdiction. Legislation to implement the reconciliation instructions is usually combined in one comprehensive bill. The reconciliation process primarily affects taxes, entitlement spending, and offsetting receipts. As a general rule, decisions on discretionary programs are determined separately through the appropriation process, which is also governed by allocations in the budget resolution.

recovery: A phase of the business cycle that lasts from a trough until overall economic activity returns to the level it reached at the previous peak. See **business cycle**. (NBER)

reserve requirements: The amount of funds that banks and other depository institutions must hold as cash or as deposits with the Federal Reserve System. The Federal Reserve specifies reserve requirements depending on the level of deposits. Such requirements reduce the risk of bank failure and allow the Federal Reserve to influence the money supply. (FRB)

reserves: See **monetary reserves**.

residential investment: Investment in housing, primarily for construction of new single-family and multifamily housing and alterations plus additions to existing housing. (Bureau of Economic Analysis)

retained earnings: Corporate profits after tax that are used for investment rather than paid out as dividends to stockholders. (Bureau of Economic Analysis)

revenues: Funds collected from the public arising from the sovereign power of the government. Revenues consist of receipts from income taxes (individual and corporate), excise taxes, and estate and gift taxes; social insurance contributions; customs duties; miscellaneous receipts such as Federal Reserve earnings, gifts, and contributions; and fees and fines. Revenues are also known as federal governmental receipts but do not include offsetting receipts, which are recorded as negative budget authority and outlays.

sequestration: The cancellation of budgetary resources to enforce the discretionary spending caps and pay-as-you-go process established under the Budget Enforcement Act of 1990 and the Omnibus Budget Reconciliation Act of 1993. Sequestration is triggered if the Office of Management and Budget determines that discretionary appropriations exceed the discretionary spending caps or that legislation affecting direct spending and receipts increases the deficit. Changes in direct spending and receipt legislation that increase the deficit would result in reductions in funding for entitlements not otherwise exempted by law. Discretionary spending in excess of the caps would cause the cancellation of budgetary resources within the discretionary spending category.

short-term interest rate: The interest rate earned by a debt instrument that will mature within one year.

standardized-employment deficit: The level of the federal budget deficit that would occur under current law if the economy was operating at potential GDP. It provides a measure of underlying fiscal policy by removing the influence of cyclical factors from the budget deficit. Compare with **cyclical deficit**. (CBO)

structural deficit: Same as **standardized-employment deficit**.

supply shock: A large and unexpected change in the production of a good or service. Examples include bumper crops, crop failures, or sudden restrictions on the supply of oil as occurred in 1973-1974 and 1979-1980. A supply shock that restricts output will raise the price of the good in short supply; a surfeit will lower the price of the good.

ten-year Treasury note: Interest-bearing note issued by the U.S. Treasury that is redeemed in 10 years.

three-month Treasury bill: Security issued by the U.S. Treasury that is redeemed in 91 days.

thrift institutions: Savings and loan institutions and mutual savings banks.

total factor productivity: See **productivity**.

transfer payments: Payments in return for which no good or service is currently received--for example, welfare or Social Security payments or money sent to relatives abroad. (Bureau of Economic Analysis)

trough: See **business cycle**.

trust fund: A fund, designated as a trust fund by statute, that is credited with income from earmarked collections and charged with certain outlays. Collections may come from the public (for example, taxes or user charges) or from intrabudgetary transfers. More than 150 federal government trust funds exist, of which the largest and best known finance several major benefit programs (including Social Security and Medicare) and certain infrastructure spending (the Highway and the Airport and Airway trust funds). The term "federal funds" refers to all programs that are not trust funds.

underlying rate of inflation: Rate of inflation of a modified CPI-U that excludes from the market basket the components most volatile in price--food, energy, and used cars.

unemployment: Joblessness. The measure of unemployment is the number of jobless people who are available for work and are actively seeking jobs. The *unemployment rate* is unemployment as a percentage of the labor force. (BLS)

yield: The average annual rate of return on a security, including interest payments and repayment of principal, if held to maturity.

yield curve: The relationship formed by plotting the yields of otherwise comparable fixed-income securities against their terms of maturity. Typically, yields increase as maturities lengthen. The rate of this increase determines the "steepness" or "flatness" of the yield curve. Ordinarily a steepening (or flattening) of the yield curve is taken to suggest that relatively short-term interest rates are expected to be higher (or lower) in the future than they are now.

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